The Menace of Alien Population.

General Grant, when at the height of his power, said to members of his family, more than forty years ago, as his son Jesse Grant recently wrote the Manufacturers Record, that he regarded as a grave danger the heavy immigration of foreigners into this country. And to that statement he added that he feared the time would come when the South, with its Anglo-Saxonism, could alone be depended upon to save the nation from ruin by the influence of an alien population. If General Grant could have lived to the present time the fear which he felt forty years ago would have been intensified many times.

The figures as to the number of foreigners or those of immediate foreign stock living in the United States are startlingly significant. New England, once the home of rock-ribbed Americanism, has ceased, so far as population is concerned, to be truly representative of America. Over 60 per cent of its population is of foreign stock.

Rhode Island leads all other States with a foreign stock of 69 per cent, followed by Massachusetts with 66 per cent, Connecticut and North Dakota with 65 per cent each, Minnesota 64 per cent, New York 62 per cent, Wisconsin 59 per cent, and New Jersey 58 per cent.

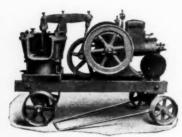
New York City had at the Census of 1920 a total population of 5,620,000. Of this number 4,294,000, or over three-quarters of its population, are of foreign stock. Chicago, out of a total population of 2,700,000, had 1,941,000, or 72 per cent of foreign stock. These two cities are but typical of many others, the detailed figures for which are given elsewhere in this issue.

On the other hand the South has been almost wholly free, as compared with the rest of the country, in the matter of foreign stock. The total for the South, including Missouri, Oklahoma and Texas, is only about 8 per cent, against 48.2 per cent in the rest of the country. As Rhode Island leads the nation, with 69 per cent of foreign stock, North Carolina leads the nation at the other end of the line with only seventenths of one per cent of foreign stock. North Carolina is one of the most prosperous states of the Union. It is developing, industrially, commercially and agriculturally, with amazing rapidity. It is probably one of the most law-abiding states in the Union, and its courts enforce the laws, without fear or favor. It is carrying forward a campaign of college and university extension involving the expenditure of six or seven millions of dollars at present for new buildings and having \$20,000,000 as the ultimate plan of this campaign. Some \$42,000,000 was expended and voted for public education in the single year, June 30, 1921 to July 1, 1922, in that state. It is putting \$50,000,000 or more into highway improvements. It is enormously expanding its hydro-electric developments and its cotton mill interests, and yet it is doing this with less than one per cent of foreign stock, an unanswerable proof of the fact that this nation can carry forward its material development and expand every interest which makes for the betterment of humanity without any great influx of foreigners.

DEPENDABLE



POWER UNITS



TRENCH PUMPS—For Draining



FORCE TRENCH PUMPS—With Winch Head—For draining excavations and general contractors use.

Tools for Contractors

"Domestic" Units are built to "stand-up" under the severe and constant duty required by the Contractor.

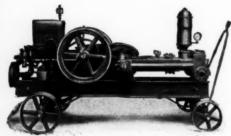
The quality of these machines is unsurpassed—thousands of users will vouch for their dependability.

The illustrations here show a part of our line of "Quality" Tools for the Contractor.

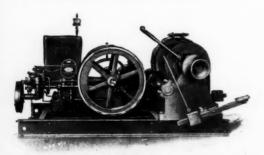
"Domestic" Units are sold by dealers in all parts of the United States and Canada.

Write us for Bulletins and name of dealer in your vicinity.

Ask for Bulletin 229-X on outfit desired.



HIGH PRESSURE FORCE PUMPS-For Supplying Water Long Distances to Boilers, Concrete Mixers, Drilling Machines, etc.



GASOLINE HOISTS—Single and Double Drum, for Raising Materials, Operating Pile Hammers, etc.

DOMESTIC ENGINE & PUMP CO.,

Manufacturers

Shippensburg, Pa.



PORTABLE AIR COMPRESSORS—For Drilling Rock, Riveting, Tamping or any purpose where Compressed Air is needed.

1922

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SONNEBORN PRODUCTS



Just Pour It On and Brush It Flat

Now any factory owner can have perfect leakproof roofs. Any workman can brush on Stormtight.

No need of the great expense of re-roofing. Do not pull up the old roof, for it makes a suitable base for a coating of Stormtight, which will make the roof as good as new.

Stormtisht FOR USE ON ANY ROOF IN ANY WEATHER

The National Roof Protector

Sonneborn Products:

APIDOLITH

the liquid chemical hardener of old or new concrete floors; prevents dusting and wear, saves money and time. 250,000,000 sq. ft. of concrete floors lapidolized thus far.

Cemcoat

the durable Mill White. Washable, fire-resisting and of exceptional covering capacity. Gloss, Flat and Eggshell.

1st—Will keep your good roofs leakproof for many years without re-treatment. Thus it is superior to roof paints which are thin, and quickly dry out and crack, and so must be renewed at considerable expense.

Stormtight is elastic and impervious, and therefore, long-lived.

2nd—Will make old roofs leakproof, which otherwise would have to be torn up. Thus you will save the expense of removing the old roof and putting on a new one.

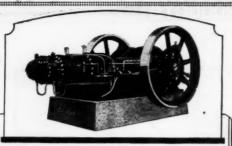
Brush Stormtight on tin, paper, composition or canvas roofs of factories, outhouses, garages, homes, and barns, and stop roof troubles and roof expense.

You can be immediately supplied. Stocks carried in principal cities.

Write for "Leakproof Roofs" and testimonials covering many years.

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SONNEBORN



OIL ENGINES In Your Power Plant

—insure better efficiency at much less cost. The fuel oil supply is plentiful and cheap—little storage space is needed—no ash disposal—no boiler with its upkeep—no firemen. Bessemer Oil Engines meet every power requirement at an average of one-half the cost of steam or one-fifth the cost of electric power.

Be free from ever-recurring coal strike

Be free from ever-recurring coal strike difficulties,—save money—write for complete catalog.

THE BESSEMER GAS ENGINE CO.

BESSEMER OIL ENGINES

15 to 180



Horse Power





Manufacturers of



Dry Pans, (3 sizes).
Wet Pans, (3 sizes).
Sewer Pipe Presses, (4 sizes).
Gravity Elevators.
Sewer Pipe Dies.

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Rubber Core and Mold Work.

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TAPLIN-RICE-CLERKIN CO., AKRON, O.

THE QUALITY UNION

The Dart is the Quality Union, and quality is always cheapest.

The Dart is made of Malleable Iron, with extra heavy pipe ends and with double seated ball joint formed of bronze rings.

IN DART UNION THERE IS DOUBLE STRENGTH

E. M. DART MFG. CO. PROVIDENCE, R. I.

The Fairbanks Company, Sales Agent Dart Union Co., Ltd., Toronto, Canada

TRANSMISSION MACHINERY

THE Caldwell line is complete. Bearings—heavy, properly designed, and well finished. Pulleys of ample weight and accurately turned. The entire line has achieved outstanding recognition under hard service. Let us figure on your requirements.

H. W. CALDWELL & SON CO. LINK-BELT COMPANY, OWNER Dallas, Texas, 709 Main St.—Chicags, 17th St. and Western Ave.—New York, Woolworth Bidg.





POWELL VALVES
(Especially The White Star Valve)

HEAWM. POWELL CO.

CINCINNATI

CORLISS ENGINES



Boilers of All Styles and Sizes

Murray Iron Works Co.

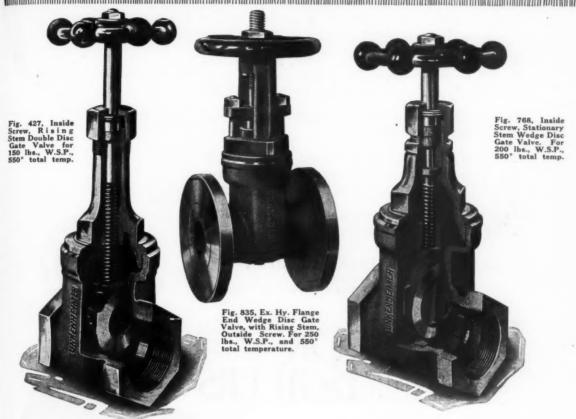
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Incorporated February 1, 1870

Paul Bigelow, 39-41 Cutlandt St., New York City. W. M. Jackson, Bourse Bidg., Phila., Pa.

1922

LUNKENHEIMER Bronke Gaile Valkves



Long service life is a characteristic of Lunkenheimer Bronze Gate Valves.

The Lunkenheimer "double taper" wedge seat construction, with the disc accurately guided in its travel, eliminates "dragging" of the disc across the seating faces, the common cause of wear in most gate valves. It also provides for positive closing without undue pullon the hand-wheel.

Generous proportions, high quality materials and the renewability of all parts, including the seat rings in sizes 1 inch and larger of the Wedge Disc type, all tend to enhance their value and insure permanence in the line.

Lunkenheimer Bronze Gate Valves take pressure from either end.

Booklet 574—FB lists all types and sizes. Shall we send FIMFR co. you a copy?

THE LUNKENHEIMER CO.

LARGEST MANUFACTURERS OF HIGH GRADE ENGINEERING SPECIALTIES NEW YORK IN THE WORLD NEW YORK OR CINCINNATI, U.S.A. LONDON

1012-9-62

America's Best since 1862

Repeat Orders Come Only When Worth Has Been Proved

The Fort Worth Power & Light Company ordered their first Edge Moor Boilers—eight of 518 H. P. each—in 1911.

Nineteen months later their second order came in, for two 589 H. P.

Their next order was for four 589 H. P., in 1913. Four years later they added two 686 H. P. and repeated this order in 1920.

Five orders—eighteen boilers—a total of 10422 H. P.—in ten years.

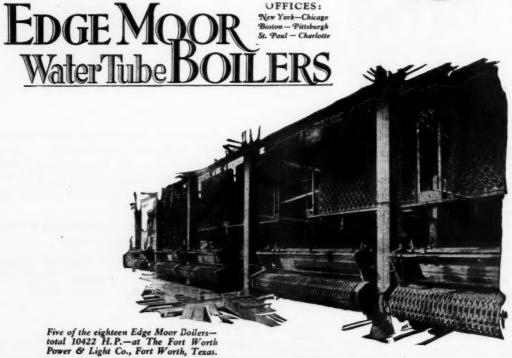
Some of the most convincing evidence of the **proved** value of Edge Moor Water Tube Boilers is found in our sales records.

The new Edge Moor catalogue is ready. Where shall we send your copy?

EDGE MOOR IRON COMPANY

Established 1868 EDGE MOOR, DELAWARE



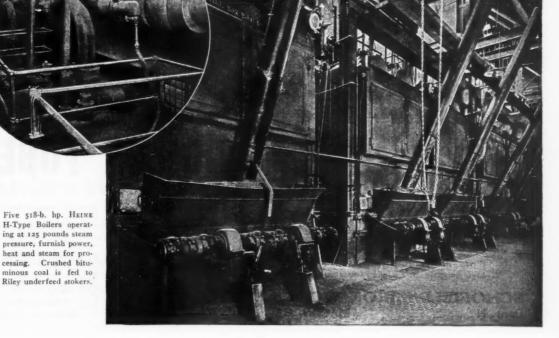


FOR INCREASED FUEL ECONOMY

ved

Top view of boiler and steam connections. Automatic valves admit steam to the main line when it builds up above a predetermined pressure. Conversely, when the pressure falls due to banked fires, the valves cut off the boiler.





Another modern plant installs Heine Boilers

THE Haverhill plant of the Robert Gair Company, where paper and box-wood are made, uses steam for power and heating.

Five 518-b.hp. Heine H-Type Boilers have been operating there for five years and in a satisfactory manner. The three top and three bottom rows of tubes are washed every five weeks and all tubes twice a year. This has been found to be good practice and the tubes are in excellent condition.

Clean heating surface means long boiler life and better fuel economy. How often to clean a boiler depends upon local conditions of fuel and water. HEINE Advantages

A feature of Heine H-Type construction is the convenience of cleaning. Soot and dust are blown from tubes by a series of steam nozzles provided with every boiler. A number of tubes can be washed out by the removal of only one hand-hold plate. Ability to clean from the ends characterizes Heine H-Type installations. It is possible to erect a solid bank of boilers without alleys between them. Heine Boilers are the natural choice for industries seeking performance with economy.

JOUINE DOUIS, U.S.A.

THE BABCOCK & WILCOX COMPANY

85 LIBERTY STREET, NEW YORK

Builders since 1868 of Water Tube Boilers of continuing reliability

BRANCH OFFICES

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Makers of Steam Superheaters since 1898 and of Chain Grate Stokers since 1893

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LOS ANGELES, 404-6 Central Building
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ENGINES BOILERS TANKS TOWERS SMOKE STACKS

If you are in the market for the above, get our prices. We are Southern Manufacturers, and not only manufacture, but guarantee our products. We want you to take advantage of our 50 years' experience.

Write us for further information and become a satisfied customer.

SCHOFIELD'S IRON WORKS
Dept. H MACON, GA.

BOILER TUBES

FOR ALL TYPES OF BOILERS

Especially bent tubes for vertical water-tube boilers

Also carry a large stock of straight tubes. Write, phone or wire for quotations.

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FOSTER SUPERHEATERS

A necessity for turbine protection, engine cylinder economy and utilization of superheat for all its benefits.

POWER SPECIALTY COMPANY

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111 Broadway, NEW YORK

HARTLEY BOILER WORKS

BUILDERS OF BOILERS

Stand Pipe, Self-supporting Stacks, Tanks, Towers, all kinds of Structural and Plate Iron Work, Boiler Fronts, Grate Bars, all kinds of Castings.

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CHARLESTON DRY DOCK & MACHINE CO.

Successors to VALK & MURDOCH CO.

MARINE AND STATIONARY BOILERS Repairs to Steel and Wooden Vessels

8,000-ton Dry Dock - 1,500 and 600-ton Marine Railways

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RADIAL BRICK AND REINFORCED CONCRETE REFRACTORY BRICKWORK

THE RUST ENGINEERING CO.

ENGINEERS AND CONTRACTORS

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Fire Without Having A Cleaning Period On



For Use with Either Natural. Induced or Forced Draft
FOR DETAILED INFORMATION WRITE
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RADIAL BRICK CHIMNEYS ALPHONS CUSTODIS CHIMNEY Construction Company

Also EXPERTS in
Repairing Brick and Concrete Chimneys
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Work done while chimney is in operation, if necessars
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ARMSTRONG INTERLOCKING SHAKING GRATES

cut fuel costs from ten
to forty per cent.
—Prove it—
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"HYTEST" FIRE BRICK

SEWER PIPE

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Fire Brick Fire Clay

"SERVICE CROWN" "AAA" "B B B"

These are the only

CANNELTON Fire Brick Made

We are exclusive manufacturers

Write for sample and prices

CANNELTON CLAY PRODUCTS CO.

Office and Factory:

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THE CAMBRIA CLAY PRODUCTS CO.

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WER PIPE - FLUE LINING - WALL COPING FACE BRICK - FIRE BRICK - FIRE CLAY SEWER PIPE HOLLOW BUILDING TILE

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FILTERS PRESSURE WATER SOFTENING PLANTS and HYPOCHLORITE APPARATUS ALL VARIETIES OF

CHEMICAL FEEDING DEVICES Write for Bulletin 22-3

THE NEW YORK CONTINENTAL JEWELL FILTRATION CO.

NUTLEY, N. J.

Member Associated Manufacturers of Water Purifying Equipment

WALSH FIRE CLAY PRODUCTS CO. ST. LOUIS, MO.

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Water Minus All Hardness

insures even dyeing; smooth running threads; reduction in thread and needle breaks in knitting.

AMERICAN WATER SOFTENER COMPANY S. E. Cor. 4th and Lehigh Ave. PHILADELPHIA

"Mount Savage" Fire Brick

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Plant: Mount Savage, Md.

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ROBERTS FILTERS CLEAN WATER

Ideally adapted for installation in textile mills; raw water ice plants; laundries, and for all industrial or municipal requirements.

"Write for Descriptive Literature."

Roberts Filter Manufacturing Co.

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NEW YORK OFFICE-FLATIRON BUILDING.

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RAW WATER ICE PLANTS



Unexcelled for Efficiency and Economy

Write us for full particulars

HENRY A. KRIES & SONS CO. BALTIMORE, MD.

WM. LEIBE REFRIGERATOR MANUFACTORY NEW ORLEANS, LA.

SOUTHERN DISTRIBUTORS FOR

CONTINENTAL MACHINERY CO.



ICE PLAN

The Arctic Stationary Can Raw Water System is the one you should buy because in actual daily use it will reduce your running and overhead expenses.

WHY?

Decreased Labor-Simpler to Operate Cleanest Plant in the World-Minimum Cost for Power— Most Efficient Air Agitation— All Core Water Absolutely Removed— Blocks of Uniform Size.

THE ULTIMATE PLANT

WRITE US FOR DETAILS

The Arctic Ice Machine Co.

Canton, Ohio

York Refrigerating Machinery



There is a YORK Machine to meet every practical condition of Mechanical Refrigeration.

If interested in Refrigeration or the Manufacture of Ice,

Write us.

YORK MANUFACTURING COMPANY - YORK, PA. Ice-Making and Refrigerating Machinery exclusively

SOUTHERN ICE MACHINE COMPANY

Manufacturers. of

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THE VILTER MANUFACTURING CO.



8132 Clinton St. MILWAUKEE, WIS.

Ice and Refrigerating Machinery

CORLISS ENGINES



Ice Machines

When ice is used for refrigerating purposes, Mechanical Refrigeration will reduce the cost from 25% to 50%.

For manufacturing ice we guarantee that the Baker is one of the most economical to operate.

Address Dept. C

Baker Ice Machine Co. Omaha, Neb.



CHATTANOOGA, TENN



CROCKER-WHEELER CO., Ampere, N.J.

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In factory or shop-wherever an electric socket is handy-CLARK AUTOMATIC DRILL will give hard continuous service in steel or

The offset spindle permits work in the closest places. Jacobs chuck is used.

CLARK AUTOMATIC DRILL comes in three sizes-3/16", 1/4", 5/16", and will operate on either direct or alternating current.

Jas. Clark Jr. Electric Company

actories and Seneral Offices



HUBBELL KEY SOCKETS



Save Money by getting a Reliable Key Socket in the First Place

> Extra heavy phosphor bronze contact springs insure long life and excellent service. Shell is threaded for shade holder or reflector. Easily wired. Standard interchangeable cap and shell. Made for 250 Volt-250 and 660 Watts.





Pull Sockets

Hubbell produced the first Pull Socket 25 years ago. Our present "3618" embodies all the refinements of this long experience. Shell is standard "QUICK CATCH", fitting more than 20 fitting more than 30 shell caps and bases. 250 and 660 Watts-250 Volts.

3618

ELECTRICAL SPECIALTIES

Write for catalog

of CLARK BLUE

RIBBON EQUIP-

MENT — drills, grinders and

buffers with builtin meters.





G-E Compound Melting Pot-melts battery compound, sealing wax and like materials.

G-E Soldering Iron is recommended for continuous light soldering and intermittent moderately heavy work.



G-E Air Heating Unitfor local heating in cabs, valve houses, pump houses, process machines, small drying ovens, etc.

Heat At Its Best It is widely used in in-



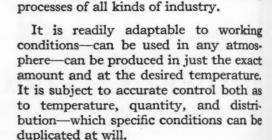
G-E Self-Regulating Solder Pot insures economy and convenience in melting solder.



G-E Soldering Iron Muffle Furnace—the electrical way to heat heavy duty solder irons.



G-E Direct-Heat Furnace, Type RRS—for heat treating tools, heat treatment research in laboratory, and many other heat treating processes up to 2000°F.



Electric Heat—quick, clean, safe, flexible, economical! Its advantages over other methods have so extended its use

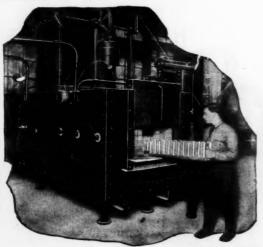
and development that it embraces appli-

cations that are vital in the heating

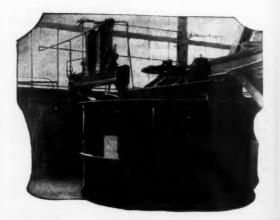
The General Electric Company builds heating units that are easily installed in the little box oven or the immense conveyor type ovens and furnaces. The new G-E heating units with non-oxidizing ribbons are 100 per cent efficient in converting electric energy into heat that speeds production and reduces spoilage.



Electrically-heated glass annealing lehr equipped with G-E Direct-Heat Units and Automatic Temperature Control. The electric lehr gives just the right time-temperature cycle, and practically eliminates rejects.



Firing vitreous enamel in a furnace equipped with G-E Direct-Heat Units and Automatic Control. The electric furnace increases production 50 to 75%, and improves quality. The Direct-Heat Unit eliminates muffles and their maintenance.



Much higher quality is being obtained by heat treating with the electric furnace. G-E Direct-Heat Units with Automatic Control are the standard of the principal licensed furnace builders.

GENERAL

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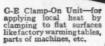
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elec-

The





Is Electric Heat dustrial heating processes

These units are compact, easily installed, and their flexibility makes possible the most desirable location of each individual heater. By combination of these units all requirements can be met for the utilization of heat over a wide and varying range in ovens and furnaces.

The General Electric Company also manufactures small industrial electric heating devices for handy use about the plant—giving to industry the broad use of electricity for practically every heating purpose. It is the originator of Sheath Wire which has made possible the development of many of these devices.

Industrial Heating Specialists of the General Electric Company are ready to serve you in making recommendations covering the installations of electric heating equipment for many heating processes in your plant.

32-81







G-E Jacketed Glue Pot effects big saving where glue is used only at



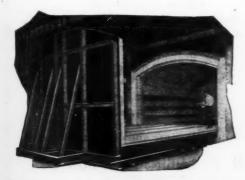
G-E Jacketless Glue Pot saves where glue is used continuously during the day. Maintains just the right temperature without attention.



G-E Oil Tempering Bath—compact, self-contained electrically heated device for tempering carbon steels.



Baking, drying, and other oven processes are improved by the utilization of electric heat. G-E heating equipment with automatic control is used most extensively in this field.

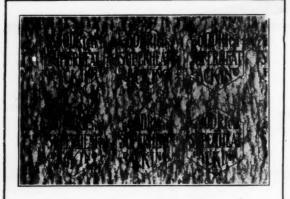


This furnace, equipped with G-E Direct-Heat Units and Automatic Control, anneals large iron castings of 40 tons or more per charge, and gives the uniform anneal necessary in heavy machine parts.



For japan baking ovens, the General Electric Company manufactures a complete line of electric heating equipment with automatic control.

ELECTRIC



Standardization

Standardization cuts out duplications, reduces inventories, speeds production, simplifies manufacture and lowers costs. And standardization can be applied to sheet packing as well as to bolts and drills.

It is no longer necessary to have a special packing for each individual condition. Your pipe lines, whether they carry steam, water, oil or ammonia, can be made tight with Goodrich "SUPERHEAT," the standard packing.

Made of asbestos fibre bound with rubber and pressed into dense sheets, "SUPERHEAT" has great tensile strength and at the same time is pliable enough to take up any unevenness in flange faces.

In power plants it is used on highest pressure steam lines; in refineries it safely holds the boiling oils and hot gases of distillation; in refrigerating plantsit prevents the escape of the acrid ammonia gas. And "SUPERHEAT" is low enough in price to be used economically on cold water lines as well.

Standardize on "SUPERHEAT." It will add to your plant efficiency and reduce your packing investment. Let us send you a sample.

THE B. F. GOODRICH RUBBER CO.
Akron, Ohio

Goodrich Packing

There is MORE POWER in
THAT GOOD GULF GASOLINE
AND SUPREME AUTO OIL

Sook for the Stage
GULF REFINING CO.

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ROBINSON OILS

"they lubricate more and outlast other oils"

WM. C. ROBINSON & SON CO.

ESTABLISHED 1832

Main Office: BALTIMORE, MD.

Refinery: CORAOPOLIS, PA.

BRANCHES IN 20 CITIES

Steam up With EMPIRE FUEL O

You can steam up much more quickly with fuel oil than with coal-and as the costly banking of coal fires is eliminated, you can shut down economically, even for short periods of non-operation.

Fuel oil is also cleaner, easier to handle, easier to control. It does less damage to fire boxes and boilers, thus reducing expensive repairs.

We are now taking fuel oil contracts for 1923. By arranging for your yearly requirements now, you can be sure of an uninterrupted supply of fuel oil at right prices.

Let our Engineering Department give you facts and figures that will show you the value of Empire Fuel Oil in YOUR own business-now.



208 S. LeSaile St. GENERAL SALES OFFICES-TULSA. OKLA.

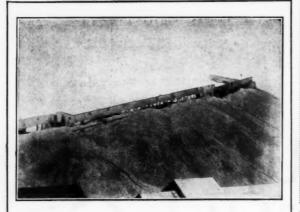
ST. PAUL 345 Hamm Bldg.

KANSAS CITY 705 Commerce Bldg.

NEW ORLEANS

CLEVELAND

PHILADELPHIA



What is this?

This weird looking picture was taken at Elvin, Mo., where Diamond Conveyor Belts are piling up these mountains of waste material.

The fact that Diamond Conveyors are so practical, dependable and economical, makes them great favorites in the Lead Belt of Missouri, in the Michigan Copper Country, in Minnesota Iron Mines and elsewhere.

We cite three cases:

Des Loge, Mo.—"We took one of our Diamond chat conveyor belts out of service February 2nd. This belt was in service six days less than twenty-five months, which we consider an exceptionally good record."

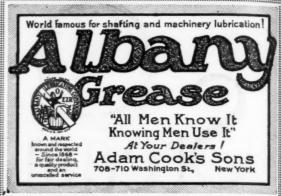
Ishpeming, Mich.—"Our Diamond Conveyor weathered through three seasons in the open, and is now in service as a picker conveyor."

Pengilly, Minn.—"Our records show the Diamond Conveyor Belt has handled during the last three years 1,986,240 gross tons of crude iron ore, and it is still in service."

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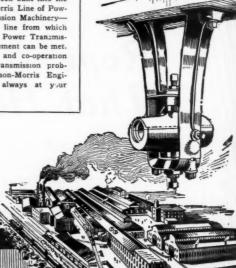
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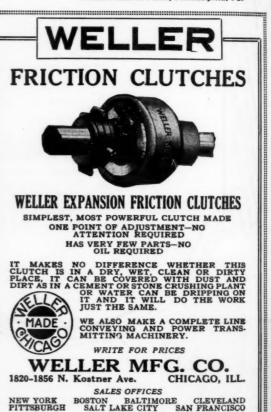
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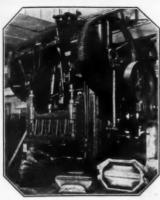
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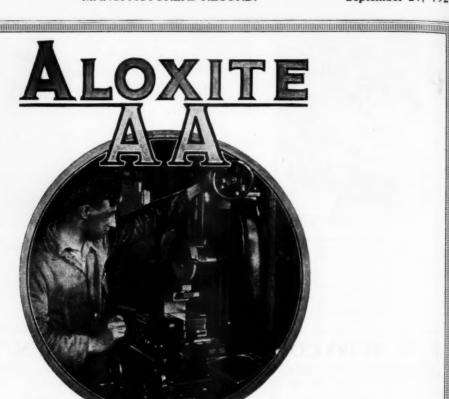


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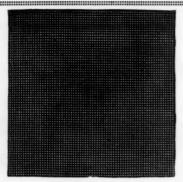
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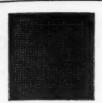
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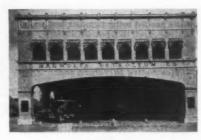
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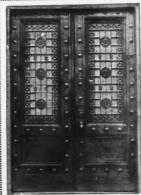


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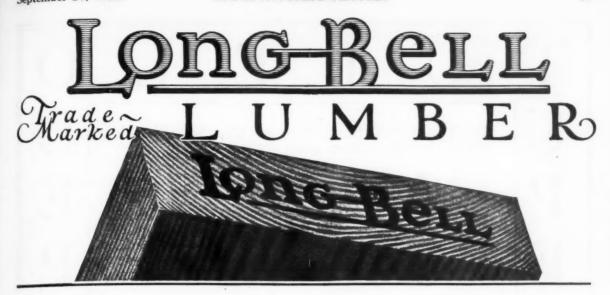
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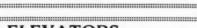
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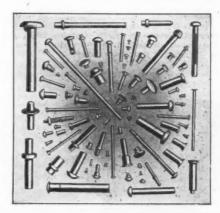
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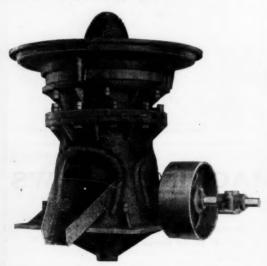


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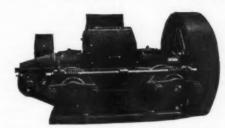
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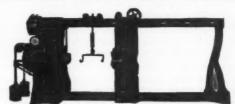
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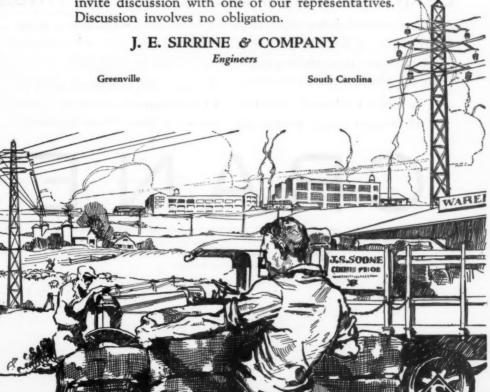
To Locate Textile Mills Where Raw Materials, Power, Labor and Climate are Found Together

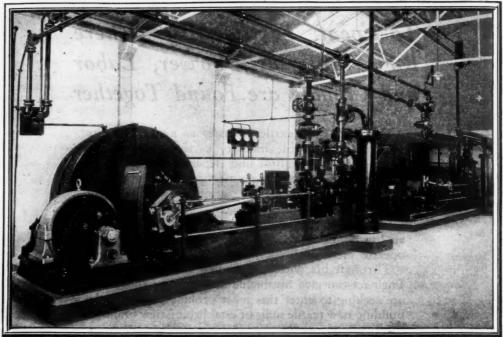
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Manufacturers Record

Exponent of America

SEPTEMBER 21, 1922

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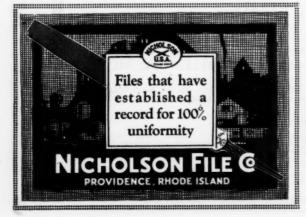
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CONGRESSIONAL INDIFFERENCE TO BOLL WEEVIL SCOURGE MENACES ENTIRE COT-TON INDUSTRY.

CENATOR WILLIAMS is right. The attempts made to control the boll weevil have up to this time been pathetic. The insect has been a national scourge for more than a generation. It has consumed hundreds of billions in wealth. It threatens the entire cotton textile industry of the world. It has taken a toll of billions in decreased land values. But Congress has never seriously attacked the problem. The Department of Agriculture has given it little more than routine attention. It even anounced a year or two ago that it had solved the trouble and still half-heartedly takes that view. The present method of control by poisoning, however, is hardly of more than casual importance. It works sometimes and sometimes it does not. In some sections it never has worked. The sea island cotton industry has been entirely destroyed.

The Government might have offered a prize of a million dollars for a specific for the boll weevil. It might have appropriated five millions and have appointed a committee of scientists to make special experiments in the control of the insect. Then we should probably have got some results. The answer is not, as Senator Smith has proposed, the elimination of cotton production, but the extermination of the boll weevil.

Between the great things we cannot do and the small things we will not do, the danger is that we shall do nothing.

-Theodore Monod.

FRENZIED EFFORTS OF FINANCIAL DICTA-TORS TO FORCE GOVERNOR HARDING BACK INTO FEDERAL RESERVE SYSTEM.

T is as true today as it was yesterday that two and two

The Wall Street Journal, speaking editorially, declares that although it was a principal object of the establishment of the Federal Reserve System "to deprive New York of its financial leadership," "New York and not Washington is the real center of the Reserve System."

That is the Wall Street view, and that is why, perhaps, the Governor of the New York Reserve Bank, Mr. Benjamin Strong, whose apparent influence over W. P. G. Harding has long been notorious, traipsed to Washington not many days ago and put himself to work. Was he there on professional duty, earning the munificent salary paid him, and was it with the Federal Reserve Board that he transacted business? We hear it said that rather he was moving about the corridors of the Capitol, button-holing politicians, whispering strange promises in the ears of listeners, sending messages into the White House itself, not in connection with pure finance, but in an effort to cajole or bulldoze the President of the United States into returning to office and power Mr. W. P. G. Harding.

We say that two and two make four today as always, and the flat declaration of the Wall Street Journal that "New York is the real center of the Reserve System," added to the work of Mr. Strong at the capital, makes with mathematical certainty this fact patent to all: New York is playing politics with the System. These influences, which have dared to accuse reputable men of demagogy in connection with criticism of the maladministration of the Reserve System, and who cry "keep politics out of the System," are putting politics into the System. Indeed, by politics they have so prostituted it that it is in disrepute throughout whole sections of the Union. They are sunk to the neck in the mire and yet dare cry out that the hands of others are black!

Why is Senator Carter Glass passing from Senator to Senator, asking them if they will not agree to vote for the confirmation of W. P. G. Harding if he is again named Governor? Is he keeping the Reserve System out of politics or is he trying to establish a poll that can be shown the President to convince him that if he does appoint Harding, the nominee will be confirmed?

The whole fraternity of Governor Harding's defenders with one voice declare that the Federal Reserve System, like the Supreme Court, should be above suspicion and beyond the criticism of the day. But who is it that has made the Board a storm center and who is it that has brought the Reserve System itself into disrepute and tarnished it with selfishness and inefficiency? Is it not W. P. G. Harding, whom Bourbons now seek to reestablish in power? A lot they care for the permanence of the System or its good repute, soft though their words be, unless New York can control the Reserve System, as suggested by the Wall Street Journal. Else why do they insist on the reappointment of the one man in the whole United States whose retention would be absolutely certain to keep the whole System in politics and assure inevitably a new Jackson and a new Jacksonian campaign to destroy utterly a revived financial dictatorship and tyranny?

Indeed, so desperate have some of the Harding followers become and so fixed in their attitude that it is common gossip, though necessarily difficult of proof, that they have had the effrontery to lay down as a condition precedent to the raising of further funds for the Republican party the reappointment of Harding. So widespread is that rumor and so general is the belief in it, that if the President should appoint Harding, not thousands, but millions, of Americans will believe that there is something rotten in Denmark, smelling to high Heaven. Indeed, by their tactics, Governor Harding's advocates have made it impossible for the President even to consider the renaming of their man without subjecting himself and his Administration to grave suspicion.

Senators, if they wish, may leave the Senate chamber, and the news writers may retire, when Senator Heflin week after week, rises and tells again his story of W. P. G. Harding and the wrecking of national prosperity. But Mr. Heflin happens to be backed by a great wall of truth. His charges are not denied, his integrity is not impeached. They may laugh at him, they may ridicule him, they may say they are tired of him, but they are not half so tired of him as the people of the United States are tired of W. P. G. Harding, and when the voting comes it may astound learned Senators to discover that the great masses are just as determined to have honesty and efficiency in the administration of national credit now and are just as opposed to tyranny and financial dictatorship as they were in the time of Andrew Jackson.

And when we say dictatorship we know what we are talking about. Indeed, it may be doubted if even the minutes of the meetings of the Reserve Board are an accurate picture of how absolute that dictatorship is.

How long has it been since failure commanded reward in America? As the whole structure of national prosperity was toppling over in 1920, and Mr. W. P. G. Harding, was tearing down the pillars of the temple, did he not cry from the housetops that there must be what he called "orderly marketing," which meant that every farmer must sell his products as he brought them to market? Would he dare say that now? On the contrary, all the experts agree, and the President, too, that it is economic "murder" to follow such a course and that a credit structure must be erected which will enable the farmer to distribute his sales over a period. The policy of Governor Harding, which in those days spread ruin everywhere, is not even defended today by any

responsible man, not even by himself, we believe. That is the kind of "genius," the type of "efficiency," which Strong and Glass and the others say must be rewarded.

And who was it who introduced and defended the graduated rate? Why, Governor Harding, and about the first thing the President learned, when he took office, was that even metropolitan bankers, sponsors for Harding, realized the sin of an agency that utilized such a ruinous, immoral and dastardly method.

Who was it who forced government securities out of the banks, even in repudiation of the solemn pledges of the Government, giving as a sole excuse a theory that financing of the war had been "unwise?" And who did drive these securities out and force Liberties down to approximately 20 per cent below par? No need to ask, for wherever there was anything sinister in finance, there, as fate would have it, was Governor Harding's management also.

His mistakes, colossal as they have been, have not made him great. He has not blundered into godship. But he the apostle of deflation, when confronted with similar deflation of his own power and authority, does not want to be "deflated." He wants to be "inflated" still more. Unwisely put into office by one administration, he wants now to be tossed back by Mellon and President Harding, to be the pet of two Administrations, and as he works his vengeance on those who dared oppose him, hopes to smile from the vantage point of support by both major political parties, invulnerable and invincible. His dream is greater than his ability. If the two major political parties alike fell into his clutches, that would solve no problem except to assure the formation of a new political party, out of his control, which would quickly enough become supreme. A leading banker lately wired President Harding that Governor Harding was building up such a financial oligarchy that if reappointed it would be necessary for the country to destroy the Reserve System in order to get rid of this financial oligarchy.

Let Mr. Strong and all his confederates who are playing politics with the Reserve System be warned that they are in the quicksands. If they won the reappointment of W. P. G. Harding, their very victory would overwhelm them. If they prove, by securing that reappointment, that the New York Reserve Bank is in fact, as the Wall Street Journal intimates, the head and control of the whole Federal Reserve System; that it has been able to overrule the purpose of Congress to take that leadership away from New York; that it has become more powerful than the Government and can dictate appointments, then that proof will be the signal to the country to put on its battle armor, for liberty knows and will tolerate no master.

The appointing authority is itself on trial.

C. R. DeLong, chief of the Chemical Division of the Government, reports that exports of chemicals and allied products for the last seven months ending July were valued at \$63,113,990, a drop of over \$2,000,000 from the value in the corresponding period of 1921. The decrease occurred in the exports of soda ash, pigments, paints and varnishes, fertilizers, and coal-tar products. Some of the chemicals showing increases during this period were wood alcohol, acetate of lime, caustic soda, zinc oxide, ammonia sulphate, rosin, and spirits of turpentine.

The Enormous Proportion of Foreign Stock in American Population--The Melting-Pot of America Is Foul With Scum.

UNREST and Radicalism in this country are a direct inheritance of Old World hatreds, jealousies and wrangling among various groups, classes and races. To what extent this baneful influence has been responsible for the turmoil and crime in this country cannot be fully measured, but we can gain some idea from the fact that outside of the Southern States nearly half of the nation's population is composed of foreign stock and over 18 per cent are foreign born. By foreign stock is meant the foreign-born population and the children of a foreign-born father or mother. In the New England States, the traditional home of conservatism, over 60 per cent of the population is now of foreign stock and more than a quarter of their people are foreign born.

Two-thirds of the aggregate population of the ten leading cities of the country is of foreign stock. Only about one-fifth of the population of New York City and Chicago is of native white ancestry, and only about a third of the population of Boston and eighteen other large cities of the country is of native white ancestry.

Of course not all foreigners or all children of foreignborn parents can be classified as undesirables for many of them are among our most patriotic people, but there are millions of aliens in this country who have so little conception of American ideals and institutions that it will take more than one generation for their descendants to become Americanized. A great deal of the lawlessness and crime throughout the densely populated areas of the country can be directly traced to foreign influence. That is clearly seen in the very names of murderers and general law breakers. The liberty offered by America has been translated into license, and laws are ignored wherever this element can get away with it through the connivance of corrupt lawyers and lenient courts. Take the question of Prohibition for example. Foreigners are notoriously "wet" in their views and they are seeking to override the American vote on the subject. Their conception of right and justice, when they have any, has been badly warped and dwarfed.

In the larger cities the various racial groups herd together and come into actual contact with real Americans to an alarmingly small degree. They retain their foreign ways; their thoughts are foreign and when they read at all they read foreign-language newspapers. The American Newspaper Annual and Directory list shows that there are 1071 foreign language publications in the United States. For many f these foreigners their one desire and aim is to make a "stake" and return to their native land. This element is easily led by the slick foreign "boss" who lives on his countrymen by his wits and thrives on their cupidity and ignorance.

The melting-pot has become foul with the scum floating on top. It is time for red-blooded Americans to become fired with a new zeal to rid our land of this danger and purify our ideals and conception of liberty. Every man who loves his country has a direct responsibility to help meet this issue. He cannot shirk this responsibility without failing to do his duty and proving false to his country.

In New England over 60 per cent of the population is of foreign stock and 25.3 per cent of the population is foreign born. In the Middle Atlantic States over 53 per cent is of foreign stock and over one-fifth of the population is foreign born. In the East North Centest States over 42 per cent is

foreign stock, and in the West North Central States and on the Pacific Coast about 44 per cent is foreign stock.

In the South, however, as has been pointed out many times, the foreign element is small. For the sixteen Southern States, from Maryland south and including Missouri and Oklahoma, the proportion is about 8 per cent foreign stock against 48.2 per cent in the rest of the country outside of the South and 34.4 per cent for the whole country including the South.

Percentage native white, percentage foreign born, percentage total foreign white stock, and percentage negro to total population, by States and sections, according to the 1200 Census.

		Per Cent	Per Cent	Per Cent	Per
States.	Total Population.	Native White.	Foreign Born White.		Cent
Maine	768,014	85.7	14.0	35	0.2
New Hampshire Vermont	443,083	79.2 87.2	$\frac{20.6}{12.6}$	40 35	$0.1 \\ 0.2$
Massachusetts	352,428 3,852,356 604,397	70.8	28.0	66	1.2 1.7
Rhode Island	1,380,631	69.6 71.1	$\frac{28.7}{27.3}$	69 65	1.7 1.5
New England	7,400,909	73.6	25.3	60	1.1
New York	10,385,227	71.1	26.8	62	1.9
New Jersey Delaware	3,155,900 223,003	72.8 77.5	23.4 8.9	58 24	3.7 13.6
Pennsylvania	8,720,017	80.8	15.9	42	3.3
Middle Atlantic	22,484,147	74.9	22.0	53	2.8
Ohio	5,759,394 2,930,390	85.0 92.1	11.8	33 18	3.2
Illinois	6,485,280	78.5	5.1 18.6	50	2.8
Michigan	3,668,412 2,632,067	78.4 81.9	19.8 17.5	53 59	0.2
E. North Central	21,475,543	82.5	15.0	42	2.4
Minnesota	2,387,125	78.9	20.4	64	0.4
North Dakota	2.404.021	89.8 78.6	9.4	35 65	0.8
DOUGH DURUUM	646,872 636,547 1,296,372	84.3	20.3 12.9	48	0.1 0.1 1.0
Nebraska	1,296,372 $1,769,257$	87.1 90.3	11.5 6.2	40 22	3.3
W. North Central	9,140,194	85.4	12.9	44	0.1
Maryland	1,449,661	76.1	7.0	21.0	16.9
District of Col Virginia	487,571 2,309,187	68.2 68.7	6.5	19.0 3.0	25.1 29.9
West Virginia	2,309,187 1,463,701	89.9	4.2	9.0	5.9
North Carolina	2,559,123 1,683,724	69.4 48.2	0.3	0.7 1.0	29.8 51.4
Georgia Florida	1,683,724 2,895,832 968,470	57.8 61.5	0.6	1.6	41.7
South Atlantic	13,767,269	66.6	2.1		
Kentucky	2,416,630	89.0		6.0	31,1
Tennessee	2,337,885 2,348,174	80.0	1.3 0.7	5.8 2.2 2.2	9.8 19.3
Alabama	2,348,174 1,790,618	60.9 47.2	0.8	2.2 1.5	38.4 52.2
E. South Central	8,893,307	70.8	0.8	3.0	28.4
Arkansas	1.752.204	72.2	0.8	3.0	27.0
Louisiana	1,752,204 1,798,509	58.5	2.5	8.6	38.9
Texas	2,028,283 4,663,228	87.8 76.3	2.0 7.7	7.0 17.2	7.4 15.9
Missouri	3,404,055	89.3	5.5	20.2	5.2
W. South Central	13,646,279	78.3	4.7	13.5	16.4
Montana	548,889	80.3 89.5	17.1 9.0	47 30	$0.3 \\ 0.2$
Wyoming	431,866 194,402	84.8	13.0	34	0.7 1.2
New Mexico	939,629 360,350	85.9 84.8	12.4 8.1	34	1.6
Arizona	334,162	63.8	23.4	42	2.4
Utah	449,396 77,407	85.8 72.2	12.6 19.1	43	0.3
Mountain	3,336,101	82.7	13.6	36	0.9
Washington	1,356,621	78.9	18.4	44	0.5
Oregon	783,389 3,426,861	85.1 75.4	13.0 19.9	34 46	0.3
Pacific	5,566,871	77.6	18.6	44	0.9
& Includes denotes have					0.0

* Includes foreign born and children of either one or both parents foreign born.

Note—Missouri included in Southern States and Delaware in Middle Atlantic States. Percentage figures apply to white and negro races, difference between 100 per cent and aggregate native white, foreign born white and negro represents small percentage of other colored races in this country, amounting to .5 per cent.

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the excilizers, ing inof lime, spirits The lowest proportion of foreign stock in any section of the country is in the East South-Central States of Kentucky, Tennesssee, Alabama, and Mississippi, with 3 per cent foreign stock and only .8 per cent foreign born. The South Atlantic States have 6 per cent foreign stock and 2.1 per cent foreign born, while the West South-Central States of Arkansas, Louisiana, Oklahoma, Texas, and Missouri have 13.5 per cent of foreign stock and only 4.7 per cent foreign born.

Of individual States, Rhode Island leads in foreign stock with 69 per cent, followed by Massachusetts with 66 per cent; Connecticut and North Dakota with 65 per cent each; Minnesota, 64 per cent; New York, 62 per cent; Wisconsin, 59 per cent; New Jersey, 58 per cent; Michigan, 53 per cent; and Illinois 50 per cent. The highest proportions of foreign stock in the Southern States is in Maryland, with 21 per cent, followed by Missouri with 20.2 per cent, and Texas with 17.2 per cent. North Carolina, with .7 per cent, has the lowest percentage of foreign stock to total population of any State. South Carolina has 1 per cent foreign stock, Georgia 1.6 per cent, Mississippi 1.5 per cent, Alabama 2.2 per cent and Virginia 3 per cent.

of the earth, as different mentally, morally and physically as metals differ in their characteristics, and fuse them into a homogenous mass of Americanized citizens.

The doctrine that America must be thrown open as the home of the oppressed of all nations of the earth, and that all people, good and bad alike, shall be invited to make their home here, is a doctrine false from every standpolnt. The man who under a false sense of sentimentality feels that he must invite into his home to mingle with the members of his family all the murderers and gamblers of his community, hoping in that way to reform them, would find that instead of reforming his guests he had destroyed his own family. On a larger scale the same thing is exactly true when we open our doors and invite the nations of the world to pour into this great family men and women alien in thought, in morals, and in racial conditions to the life of America.

Infinitely better would it be for us to make less material progress than to flood our land with aliens, under the demand for a larger supply of labor, by bringing in the lower classes of foreigners. We have more aliens of that class in this country than we can assimilate for many years to

Foreign stock in population of South, rest of country and United States.

	Total Population.	Native White.	Foreign Born White.	Foreign Stock White.	Negro.	
Total South	36,306,855	26,151,235	1,013,408	2,935,600	9,060,137	
Per cent Rest of Country Per cent	69,403,765	54,956,926 79.1	12,699,346 18.1	33,463,358 48.2	1,402,994 2.0	
Total United States	105,710,620	81,108,161	13,712,754	36,398,958	10,463,131	

Of the ten leading cities of the country nearly two-thirds of their aggregate population is of foreign stock. New York City, with a population of 5,620,048, has 4,294,629 inhabitants, or over 76 per cent. of foreign stock. Of Chicago's total population of 2,701,705, 1,946,298, or 72 per cent, is of foreign stock.

Only about one-fifth of the population of New York City and Chicago is of native white ancestry, and about a third of the population of Boston, Cleveland, Detroit, Buffalo, San Francisco, Milwaukee, Newark, Jersey City, New Haven, Providence, Hartford, St. Paul, Scranton, Paterson, New Bedford, Fall River, Lowell, Cambridge and Bridgeport is of native ancestry.

come. They are a danger to the perpetuity of this Government and Americanism. To a large extent these people are members of unions, of a socialistic trend and knowing nothing of American Government, they are used by radicalism to force cowardly politicians into yielding to the demands of the radical leaders.

In the startling figures presented in the foregoing tables, showing the enormous percentage of foreign stock in this country, will be found one of the reasons for much of the agitation on the part of newspapers in the great cities, where the foreign element predominates, for the things which are un-American and the doing of which would mean the breaking down of our Government.

Foreign stock in the Population of Ten Leading Cities.

	Total	Native	Foreign Born	Foreign Stock	
City.	Population.	White.	White.	White.	Negro.
New York	5,620,048	3,467,916	1,991,547	4,294,629	152,467
Per cent		67.1	35.4	76	2.7
Chicago	2,701,705	1,783,687	805,482	1,946,298	109,458
Per cent		66.0	29.8	72	4.1
Philadelphia	1,823,779	1.290,253	397.927	989.398	134,229
Per cent	-,,	70.7	21.8	54	7.4
Detroit	993,678	662,768	289,297	638,068	40,838
Per cent	,	66.7	29.1	64	4.1
Cleveland	796,841	522.488	239,538	549,779	34,451
Per cent	,	65.5	30.1	69	4.3
St. Louis	772,897	599.376	103,239	343,133	69.854
Per cent		77.5	13.4	44	9.0
Boston	748.060	491.566	238,919	548,674	16,350
Per cent	120,000	65.7	31.9	73	2.2
Baltimore	733,826	541.219	83,911	246.750	108,322
Per cent	.00,020	73.8	11.4	230,100	14.9
Pittsburgh	588,343	429.995	120.266	333.731	37,725
Per cent	900,040	73.1	20 4	56	64
	576,673	434.807	112.057	252,406	15.579
	310,013			202,400	20,010
Per cent		75.4	19.4	43	. 4.1
Total Ten Cities	15,355,850	10.224.075	4.382.183	10.142.866	719,273
Per cent	20,000,000	66.5	28.5	66	4.6

When Israel Zangwill invented the term, "the meltingpot," as has recently been well said, he coined a phrase which caught public attention but which is inaccurate from every point of view. Zangwill himself was never fused in the melting-pot of America to the point of losing his nationality or racial affiliations. It is impossible to take a dozen metals entirely different in their composition and through a melting pot fuse them into one homogenous metal of value. Neither can you take millions of people from all the races

The fight against prohibition by these papers is largely due to that influence which has permeated the life of the country. The effort to break down the sacredness of the Sabbath Day and to give to this country the Continental Sabbath has also come wholly as a result of the same influence. When we consider the tremendous power exerted by the great newspapers of the big cities of the country and then study the statistics which show the proportion of foreign stock in those cities, we can gain some conception of the

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fight which must be made by patriotic Americans to overcome this adverse influence—the influence which would destroy Prohibition, which would destroy the Sabbath, which would break down our laws and give free rein to the criminality which curses our land, a criminality largely due to the renegade foreign element and to its influence for evil.

No melting-pot ever devised by the genius of man can fuse into one homogenous people the various races which have crowded into our country and make all into genuine Americans. The sentimentality of the past which has thrown wide open our gates to nearly all the rest of the world, the sentimentality which denounces the Pacific Coast because it is trying to keep the Japanese out of our country, must give way to a common-sense recognition of the fact that there is no

melting-pot into which all these various races can be dumped and out of which will come a true Americanism.

The demand of some interests for the letting down of the bars against immigrants must be vigorously opposed by every man, employer and employe, merchant, clerk, preacher or teacher, who sees the danger of an ever-increasing influx of foreigners of the lower, ignorant class. Until we have done our best through a long period of years to Americanize and Christianize the un-Americanized and the un-Christianized who are with us we should rigidly limit the influx of others.

At the rate we have been going America will soon become a foreign country!

It is time to call a halt!

Government Interference with Business, as in Priorities and Price Control, Disastrous to All Interests

If there is one cardinal error in this country it is the belief of educated and responsible citizens, in and out of office, that violation of the law, by them, for what they conceive to be good purposes, is excusable and ought not to be questioned. We find men all over the country who violate the Volstead Act, dealing with bootleggers, and yet they are horrified that other lawless men wield bludgeons at night and rob and kill.

The voluntary price control organization brought into being in Washington through the efforts of Secretary Hoover and the Administration has "voluntarily" dissolved. The reason for this dissolution, we understand, is that eminent counsel advised that the whole affair has been illegal from the beginning, without any authority of law, but in defiance of law. It is just as lawless for Government officials to combine with producers to keep prices down as it is for them to combine to keep prices up. The truth is that combinations to maintain low prices constituted one of the reasons why enactment of the anti-trust laws was considered requisite.

Another feature of this particular experiment in illegality, however, was the fact that governmental intervention probably increases instead of stabilizing coal prices. Seldom is there any trouble in the coal fields but that high officials at the capital rush into print and gravely inform the country that a frightful shortage is in sight. Instantly, timid citizens, fearful of the winter, plunge into the market and create an apparent shortage. There is at least one classic instance when a similar cry of shortage in another commodity did create such an immediate public demand that a real shortage promptly did occur. Enough of the commodity was sold, we hear, to last five years.

We think it is susceptible of proof that if the Government had given to non-union miners the protection to which they were entitled under the law, those non-union miners would have produced enough coal to have prevented a fuel debacle and at prices within reason. Washington, however, where maintenance of law would have solved the problem, preferred to undertake a solution by repudiation of the law.

Likewise, it is notorious that the check-off has been declared illegal. Yet the Government in Washington boasts that a truce in the coal strike was brought about by ignoring that fact and permitting a settlement containing the check-off

For weeks the newpapers have been filled with stories to the effect that this or that official was assuring this or that industry that it might do this or that thing, in spite of the law, since the official felt that the results would be good. That means a government of men, not a government

of laws. It means the substitution of the ipse dixit of a single person for the high authority of the statutes.

How can citizens whose facilities for education have not been of the best be expected to have respect for the law if men in high places, who ought to know better, flout the law when it suits their convenience?

Nor are men, when they get to Washington, content merely to ignore the laws. They insist, when any emergency arises, on the enactment of emergency statutes. For instance, the President himself rushed up to Congress to demand that the law-making body quickly establish a great coal purchasing and distributing agency, a sort of United States Coal Corporation, to spend the money of taxpayers in commerce. And within two weeks his spokesman on the floor of the House was solemnly announcing that the President had changed his mind and did not any longer think such an agency required! Nevertheless, this experiment in socialism would have been attempted had Congress been better disciplined. No wonder the country talks about half-baked policies!

Nor can farmers fail to notice that when they, in despair, suggested that the Government might undertake to sell their products and save them, they were coldly advised that the Government could not venture into so radical an undertaking. It is as much a function of government to protect producers as to protect consumers.

Just now hysteria in favor of priorities is popular. The very word "priority" is undemocratic and ought to have no place in our economic structure, so far as transport is concerned. But ever since traffic piled up during the war there has been a school of thinkers dedicated to the idea that it is a proper thing for the Government to look over the fields and separate the sheep from the goats, determine what goods can move and what goods cannot move. The fruitgrower in the Northwest is just as much entitled to move his crop to market and save this year's income as some manufacturer is to secure coal. A democratic government ought to have nothing to do with preferences. It is getting so that before a man can engage in business with any hope of success he has to institute an inquiry to discover whether or not he is likely to be deprived of railroad facilities at a moment's notice. We are not far wrong when we say that priorities in this country have invariably worked grave hardship, disrupted general business, ruined many honest men, halted prosperity and caused a long trail of trouble. Two years ago they were invoked unnecessarily, as was afterwards acknowledged, we believe, and there is some good reason to suppose that they are unnecessarily invoked now.

Mr. Ford is right, as Judge Gary has intimated, when he

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protests against a conscienceless profiteering in the coal market. The Administration or Hoover plan is to control prices through the use of priorities. We believe that the employment of priorities has simply been ammunition for profiteers' guns. The feeling of panic which the Government itself has created is responsible for coal bootleggers. It is their most valuable asset. Indeed, the moment responsible coal firms began to advertise that there was no need for a panic, that coal would be forthcoming and at reasonable prices, the speculative market began to tumble of its own weight.

We are not unmindful of extreme situations which may call for heroic remedies. But the employment of so drastic a measure as the priority, which virtually deprives some citizens of their property without due process of law is abhorrent to the American mind. We do not think that such a thing as a priority order should be permitted to issue until after public hearings. We are told that when it was suggested to an Interstate Commerce Commissioner that such a hearing be held before the first priority order was published, to establish the fact of whether or not an emergency warranting it existed, he simply answered that anybody who did not know there was such an emergency was a fool. There is reason to suspect that some of his own colleagues, who emphatically are not fools, came within his sweeping definition

Nine out of every ten citizens, say, will give it as their opinion, if they have any, that the Government bungled both strike situations. At times, indeed, the Government made itself ridiculous. There was nothing novel in that. The Government always makes itself ridiculous when it intervenes in matters properly outside its jurisdiction. The art of governing and the art of doing business are different things. Like oil and water, they do not mix. Nevertheless, the virus of interference is so subtle that even a man such as President Harding, who went into office detesting interference by the Government in matters that were not of its business, is not two years in office before he is wheedled into the same old policy of intervention.

Half of all the trouble in both the coal and railroad strikes has been caused by the Government. If the latter had done the one thing it ought to have done—respected the law itself and enforced the same respect from all others—fewer reputations would be in their nadir and industrial conditions would be vastly improved.

We come to the crux of the situation. The very use of priorities is an acknowledgment and confession that the transport facilities of the nation are inadequate; that the nation lacks the capacity to handle normal business. Preferential diversion of facilities is obviously no solution. It is merely a makeshift, and a mighty poor one. The answer is not abuse of the facilities available, but the creation of additional facilities. No politician proposes that cure. Instead, having seen the railroad industry bled white by regulation, Congress assumes that the proper thing to do is to have more regulation. Two hundred thousand additional coal cars and a full supply of locomotives would be worth all the priorities that ever were issued. This additional rolling stock would, in terms of national prosperity, be worth many times its cost.

The world has reached the point where short-visioned and narrow statesmanship will not do. Old methods of waiting for crises to burst in full vigor and then solving them by emergency policies which inevitably are destructive of simplicity and efficiency in government can no longer be adhered to. We must plan far ahead. Our statesmanship, as never before, must be based on sound economics, not on popular quack policies. We are trying to build a permanent nation, a great empire of prosperity, not only a soulmagnet for struggling humanity, but a structure of prosperity

so sound that it will give a new meaning to ideas of wellbeing and a new interpretation of what material happiness can be on earth. We should build permanent foundations, whereas the employment of priorities is our confession that we have not even caught up with the present, much less made any adequate preparation for the beckening future.

ANY PRIORITY A FORM OF TYRANNY— AMPLE FREIGHT CARS THE ONLY PROPER REMEDY.

Birmingham Slag Company

Birmingham, Ala., September 9, 1922.

Editor Manufacturers Record:

With reference to the news item appearing in the Manufacturers Record, regarding amendment to Service Order No. 23:
The 34,000 open-top cars released from the coal trade must all be under load, as we for one have been unable to secure any part of them, and the only information we can secure from local railroad officials is that there are no cars available for anything but coal. If any of our competitors have been benefited by this amendment, we want to congratulate them. Since issuance of Service Order No. 23 the quantity of coal

Since issuance of Service Order No. 23 the quantity of coal mined in Alabama has nearly doubled and the price has more than doubled.

Several of our customers having read this same article are calling upon us for their share of the cars we receive, and cannot understand it when we advise them we are not receiving any. Therefore, if you find where these 34,000 opentop cars are, either have some of them sent this way, or advise your readers through your next issue that the coal operators are still in control of the situation and shippers of other commodities must await their pleasure.

We have one order for 35,000 tons of one-man stone or slag for use by the U. S. Engineers on revetment work on the Mississippi river, which can only be used during low waters, and it is certainly as much importance to protect the towns along this river from high waters as it is to put coal in storage for future consumption. Other construction jobs which are now held up could be shown to be of more importance to certain communities than the receiving of certain coal in that community.

Our operations have practically been at a stand-still since the issuance of Service Order No. 23, with no immediate

prospects of resumption.

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The Birmingham Slag Company is not in a different situation from many other companies in the United States. Priorities mean throwing hundreds of establishments into idleness. That is what they are for. Every time the coal industry gets into trouble, the Government seizes in its behalf the transportation facilities of the country and citizens in other industries, with money invested, can twirl their thumbs and wonder what it is all about.

It may be necessary, as the Government seems to think, to utilize the vast powers of the Interstate Commerce Commission to fix prices on coal, by granting or withholding transportation rights, but an investigation might be in order to determine what happens to other industries when control of coal by priorities is undertaken. Any priority is a form of tyranny and dictatorship, utterly at variance with every concept of free government.

How long will it be before the government will understand that the solution of the problem is the provision of ample freight cars, of ample railway facilities? Robbing Peter to pay Paul is a process that cannot continue indefinitely. If the nation's business is too big for the railroad facilities, let the railroad facilities be made big enough for the nation's business.

The Iron Age reports that the British Empire Steel Corporation of Sydney, N. S., now has twelve steamers engaged in shipping ore from Wabana, Newfoundland, to Germany. via Rotterdam.

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United States to Pay German Reparations Bill and Cancel Foreign Debt as Well-Effect of Congressional Refusal to Protect American Potash and Chemical Industries. THE House of Representatives has "distinguished" itself.

We doubt if in the whole history of legislation, in this or any other country, a legislative body ever gave more convincing evidence of its inability to differentiate between the interests of its own and those of a foreign country than did the House when it ordered the tariff bill back to conference with instructions to the conferees to eliminate protection for potash and abandon the embargo on dyes and chemicals. The House influence later compelled the writing of such rates on chemicals and dyes as to assure, in the belief of Dr. Herty and other experts, the utter ruination and destruction of an independent American chemical industry.

There has been considerable talk these last few years as to how Germany should pay her war debts. There has been much discussion as to whether or not we should cancel the debts due to us from Europe. There is more than one way of killing a goose. There are many highways to Rome. The House has voted that the United States shall pay the German reparation bills and cancel the foreign debt likewise.

Let the facts be considered. The war divided the usual sources of world potash supply between the French and Germans. It is asserted that the French and Germans have entered into a joint arrangement for the control of prices and output of potash. The great market for potash is the United States. With the domestic industry destroyed, the Germans and French together can charge what they please. That is what they will do. Indeed, in the Lubersac-Stinnes arrangement for payment of German reparations by French participation in German industrial endeavors, one of the chief considerations is potash. It is urged that through a monopoly of potash, enormous profits can be made, so enormous that in themselves they can go far toward payment of the German

Another chief item in the Franco-German negotiations is the chemical and dye industry. We are told unofficially that during the negotiations it was specifically pointed out to the French that if the American Government failed to give the American dye and chemical industry the most absolute protection, the Germans were confident that they could quickly reconquer control of the American trade, drive American competitors out of the business and thereafter secure such profits that French financial requirements could readily be taken care of, in large amounts.

In other words, since we must speak plainly, the one big thing the Germans have been offering the French as a reason for accepting the so-called "industrial solution of the reparations question" is a prospective exploitation of the American market in potash and chemicals.

Will it not strike the average man as more than ordinarily peculiar that it happens to be these two very things that the House, at the last moment, votes must be deprived of protection? We think so, especially when it is remembered that a member of the House, who was in Germany for months, was reputed to be there in behalf of an American firm seeking a private agreement with the German cartel, and when a former member of the House, generally known as American agent of the cartel, speaks knowingly of what "my House" will co

We do not mean to intimate that German influences dominate the House. Agricultural interests have been urging free potash for some time. They did not have the length of vision to see that any present small extra cost in building up a great domestic supply would be more than equalized by the assurance of lower prices later on. What we do believe is that subtle German influences, aware of this feeling, aided in nursing it to fruition. The farming interests, we think, were unknowingly made to serve a German purpose.

Bad as is the position taken by Congress on potash, it cannot compare in its deplorable results with the action taken as to dyes and chemicals. Every other great nation on earth protects absolutely that particular industry. It is only incidentally a question of economics. It is primarily a question of national defense. There is no such thing as fighting a modern war without the aid of a thoroughly modern and adequate chemical supply. Without it any nation is helpless. Restriction of the building of dreadnaughts is a dramatic gesture, but dreadnaughts are out of date, just as is the romance of war. The sneaking submarines, the airships overhead and the lethal products of chemistry are the weapons of modern warfare. If we break faith which those who have invested millions for the creation of a purely American chemical industry, and permit destruction of their plants and property, not millions but billions some time hereafter will have to be spent in the replacement of them, with untold suffering in the meantime. And it is not certain that they could be replaced, for in chemistry it is not buildings, however large or spacious, that count, but personnel, and the personnel can be created only by years of training and study.

It would be better to abandon the army and the navy as regular forces, keeping them in skeleton organization only, than to abandon the chemical industry. That is the plain truth, bluntly told.

Not only, however, would a properly protected chemical industry have been a war weapon of the first importance, but it would have been so, in reserve, without any cost to the Government whatever. The profits of trade in time of peace would have kept it in superb condition while it built up its own personnel, instantly available in time of war. Likewise, as always happens, an increase of efficiency and domestic competition would surely, as was already happening, have brought costs down year by year to the consumer.

With the gates let down as the new tariff bill proposes, there is no limit to the profits the German dye cartel will ultimately take from the United States. Be it remembered that an effort to correct this blunder in policy five years hence would be of no avail. There would be nothing then on which to build, and capitalists who lose now their investments after having relied on Government promises would have no heart to try the experiment again. If the dye industry is killed now no German exploitation will restore it later. It has been said that before the war Germany made in America, on dyes and chemicals alone, enough to finance an ordinary war. We do not think she can take thirty billions in a year or two from us, but in twenty years of domination of our market, with our whole textile industry dependent on her, the profits would be incalculable.

There ought to be no politics in this. President Wilson was the first to recommend a complete protection of our chemical and dye industry. President Harding is reputed to be of the same mind. We do not know of one officer in the army or navy, or of one unprejudiced statesman in America, or of one official who is qualified to speak, who does not join in the conviction that this one industry, above all others, is absolutely vital to the well-being of the nation. Only in some newspapers, notorious for pro-German tendencies during the war, have we seen arguments against protection of this industry, and these were not arguments, but articles cleverly devised to make it appear that a vast trust was trying to buy special privilege at Washington. As between selling to a German trust the right to exploit America and selling to an American trust the right to build up an essential industry in America, it seems that most Americans would have favored the latter. But fortunately there was no such alternative presented. It so happens that competition in the dye and chemical industry in the United States is exceedingly real. There is no dye trust here, but a marked jealousy between the various producing interests.

European statesmen who have said that America must solve the reparations issue evidently knew what they were talking about. The Congress says aye to that proposition. Germany lost the war, but Germany will make us pay for it. Profits made out of us are to pay the bills. We are to furnish the cash "in industry" to pay Germany, so that Germany can pay the Allies. That is to be the way out, says Congress.

Unless Congress by special resolution corrects its blunder and provides special protection for the dye and chemical industry, the President ought to veto the bill. This country needs a protective tariff law, and needs it now as never before, but it would be far better to continue under the Emergency Tariff Act than to accept a bill that, first, provides for American payment of the cost of the world war, and, second, decrees that we must enter the next war unprepared and shorn of a principal weapon of defense.

CAN COAL BE PROFITABLY STORED?

M. JAMES A. GREEN, president of the Matthew Addy Company, Cincinnati, coal and coke and iron merchants, in a letter to the MANUFACTURERS RECORD regarding the question of storing coal, writes as follows:

"Mr. Glenn's suggestion in your issue of the 14th to store coal is very interesting, were it possible. Unless I am mistaken, the fundamental requisite for his plan is that the coal be stored up in lumps.

"Now, only a small proportion of the mine run coal, after being screened, is lump size. What is to be done with the much larger proportion of nut and slack? In addition, the market for lump coal is limited as compared to the market for steam sizes. The great market for coal is from the railroads and industrial plants, who use mine run and who do not use lump coal.

"However, all coals do not ignite when the fine sizes are put in a pile. Most of the Southern coals, including, of course, Virginia and West Virginia, are almost immune. Indiana coal is dangerous in this way, Ohio coal is slightly less dangerous and Illinois coal comes next. Those coals will ignite when the run-of-mine is piled with too much pressure."

In their September 16th market report of conditions in the iron and coal trade the Matthew Addy Company make the following interesting review of the present situation:

"Increasing transportation difficulties embarass the iron trade. Most of the talk about a shortage of coal is pure bunk. The shortage of coal is in reality a shortage of empty cars and of locomotives to pull cars to and from the mines. And the fact that the basic trouble is with the railroads and not with the mines does not make the shortage any less real. When the strikes began practically all consumers of iron were without reserve stocks and now everyone is running with empty yards. The situation reminds one of a Hudson Bay factor who ran out of regular provisions and never knew whether he was to eat or not until he had visited his fish net. So most foundrymen do not know these days whether they can run or not until they have found whether the railroad has made deliveries or not.

"The market this week has been strenuous. Demand is far ahead of the immediate supply. Foreign iron is the only thing that prevents prices from running away with themselves. This European iron is arriving at all of the Atlantic ports and it is now in complete control of the East and it has been sold for shipment as far west as Pittsburgh. As for the Pacific Coast the Europeans are having things pretty much their own way. They can deliver iron and coke in San Francisco, Seattle and Los Angeles for not much more than the freight American producers have to pay on their products. So instead of reaching out for the markets of the world the American furnaces are not able temporarily to take care of their home market. But this is due, of course, solely to the artificial conditions produced by great national strikes."

THE "WORLD'S" INVINCIBLE TITLE TO SUPER. LATIVE IDIOCY.

A T Indianapolis, September 13, Comptroller of the Currency Crissinger delivered one of the most important addresses that has been made in this country in recent months. We had the pleasure of printing extracts from it in our issue of last week. Mr. Crissinger showed that since August, 1914, the United States has contributed toward the financing of the outside world the enormous sum of \$21,751,000,000—so gigantic had been our participation "in sustaining and stabilizing the finances of the world."

In commenting on this notable address, the New York World concludes a critical editorial with the words: "The most disturbing fact for Americans about this 'extraordinary message' is that its deliverer is believed to be booked by President Harding as the head of the vast federated banking power of the United States."

In trying to prove Mr. Crissinger a financial idiot, the World gives convincing evidence of its own invincible title to that epithet.

A WEAK DISCLAIMER.

B. M. JEWELL, who represented the strikers in the railroad difficulties that have prevailed since July 1, said,
in commenting upon the terms of the strike settlement announced last week: "The public will not believe that the rank
and file of labor condone acts of violence resulting in loss of
life among train service employes and others."

If Mr. Jewell had come out at any time with a good, round condemnation of all forms of violence and interference with those railroad employes who remained at work or with others who took the places of strikers, the public might accord a measure of sincerity to this latest utterance of Jewell. But it specifically refers to violence causing loss of life, and in view of the notorious fact that some strike leaders have not only condoned violence, but on occasion have uttered velled threats against the persons of men who were at work in the shops and also against the property of the railroad companies, the public will regard in its proper light this latest guarded disclaimer from this strike leader.

The proceedings instituted by Attorney General Daugherty at Chicago will have accomplished one profoundly important purpose if they go no further than to demonstrate that no striker or strike leader may resort to violence without perli to his own life or liberty—that crime committed in the name of organized labor is not one whit less amenable to punishment than crime committed by one who does not bear the brand of a trade union.

There are men in this country yelling for justice who would never be heard from again if they got it.

Tax-free securities build good roads.

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When Do Activities of Strikers

Become Treason to the State?

DEEP SIGNIFICANCE OF RULINGS BY JUDGE WOODS AT TRIAL OF MINERS WHO PARTICIPATED IN ARMED MARCH IN WEST VIRGINIA—JURY IN JEFFERSON CIRCUIT COURT FINDS WALTER ALLEN GUILTY OF TREASON AS CHARGED.

[Special Correspondence Manufacturers Record.]

Charles Town, W. Va., Sept. 16.

Walter Allen was this afternoon found guilty of treason against the state of West Virginia by a jury in Jefferson County Circuit Court for the part he played in the armed march of 8000 union coal miners on the non-union bituminous fields of Logan and Mingo counties in August of last year.

The successful prosecution of Allen on a treason charge is a matter of deep significance—to lawyers on account of the interpretations of treason as given in the rulings of the trial judge; to union leaders and their minions as demonstrating the peril of warfare against government and the law, and to the public because of the precedent established in the form of the sternest kind of a rebuke to the high-handed aggressiveness of organized labor.

It is difficult to adequately describe the Intensity of feeling which has raged around the treason trials in progress in the Jefferson circuit court. Counsel for the defense have exhausted every resource in the attempt to eliminate the treason charges, and the rulings of Judge John Mitchell Woods and the result of the Allen trial form a new and most important chapter in criminal jurisprudence.

"Just as assault is the levying of war by one individual against another so is treason simply a matter of committing an assault against the state."

That epitomizes the definition of treason given by Judge Woods. "Where a body of men mobilize, where they come together with a treasonable design, with a design to commit an assault against the state, that is levying of war," Judge Woods adds

Frequently called upon for rulings in the treason trials of William Blizzard and Walter Allen, Judge Woods had been required to blaze a trail, because of the fact that these cases have no parallel in legal history, although opinions in the cases of Aaron Burr and those growing out of the Whiskey Rebellion of western Pennsylvania have been of some assistance in a general way, being frequently cited by attorneys.

In overruling a motion this week to exclude the evidence of the state and direct a verdict of not guilty in the case of the state of West Virginia against Walter Allen, Judge Woods struck out boldly, according to court attaches and attorneys, and gave "a modern and practical definition of treason."

"I appreciate the responsibility that rests upon me in passing upon these questions," Judge Woods remarked in the course of his oral opinion. "I appreciate that it is a grave responsibility. It is a grave responsibility to see that I reach conclusions that are correct in point of law, and that I apply them correctly and fairly. I think I have endeavored to do that, and must do that."

Everybody who has sat through these trials, in progress here since last April, court attaches and all others connected in any manner with the prosecution or defense, has been accused at some time or other with partiality or favoritism toward one side or the other, because, probably, the evidence has been so closely interwoven with the industrial situation in the southern part of the state, the ever-present differences between capital and labor; union miner and coal operator. Well-meaning newspaper reporters, those who try to adhere strictly to the fundamental principle of "the game"—truth-

fulness and accuracy; who have honestly endeavored to set down the testimony and other news here concisely, have all been charged at some time or other, with "coloring" their stories in favor of one side or the other, and all probably have succumbed occasionally to the various forms of propaganda despite their rigid training to detect and steer clear of it.

Families have been sharply divided on the incidental issues and principles involved in the trials; brother has testified that the veracity of brother in the community in which they live is questioned; attorneys have openly questioned the characters of each other. But no one has ever questioned the fairness of Judge John Mitchell Woods. Not a single word of criticism of his rulings and opinions has ever been heard. Ever patient with both witnesses and attorneys, especially when over-wrought nerves and strain of months of legal battling led lawyers into fiery conflict, Judge Woods has conducted the trials in a manner that has won and held securely the complete confidence and respect of all.

As to the practicability of the law of treason, Judge Woods declared in his opinion that "it will be a very sad day to all friends of true freedom and government, a happy day to the enemies of orderly government, to anarchists and to lawless men, when the crime of treason can be banished from the category of crimes."

"Treason," Judge Woods continued, "is an offense that used to be considered with a great deal of opprobrium. It was an offense, which at one time could be pressed with a great deal of venom, and with a great deal of malice and with a great deal of tyranny. It was a charge that lent itself very conveniently to tyrants in days gone by. But those days have gone. They went in this country when our constitution, which defined treason, was adopted, destroying the efficacy of treason as a weapon in the hands of tyrants. It still exists. If a state cannot protect itself, its own life, it is impotent. If a state cannot save itself, it cannot save you and it cannot save me. If the people can collect together and conspire to destroy the government; if they can advocate, license and destroy law and liberty; if they can disregard the the rights of others; if their selfish desires to obtain benefits, even benefits which they might be entitled to, and resort to fire and sword, and war to obtain what they ought to be willing to adopt the orderly and patient process of government and law to obtain, a government would be impotent. In this case, we are not concerned primarily with the merits of the controversy out of which this indictment grew."

The defendant and his associates, Judge Woods declared further, may have had some grievance that they had a right to complain of, but what the court is concerned with here, as the representative of the state of West Virginia, and what concerns the good citizens of the state of West Virginia, in every quarter of the state, and every class and every calling, is that people must be reminded that they must not war against the state in order to obtain redress for grievances, either fanciful or real.

"A man who starts a war is like a man who starts a fire; he does not know what it is going to grow into." "This grew," Judge Woods continued, (referring to the armed march from Marmet, near the state capital, at Charleston, more than fifty miles across country, with a subsequent battle

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for days on Blair mountain with the Logan defenders, comprising non-union miners and other hastily recruited forces under the direct command of Governor Morgan,) "to very serious proportions. It has been the means of the sacrifice of the lives of I don't know how many citizens of the state of West Virginia, whose lives should not have been sacrificed. It has been the means of maining others. It has been the cause of property loss, and of terror which cannot be reckoned on the part of those who were exposed to it, and certainly whoever started it was ill-advised and took a very wrong step, and a step that they cannot hope to have condoned. They have no right to ask to have it condoned. There may have been some circumstances which would palliate it to some extent, but they took the wrong course, and they must be reminded that there is a sovereign people in the state of West Virginia who must not be defied and must not be warred against. If there was any just grievance it should have been submitted to the people; there is machinery by which it could have been done. It might have taken a little more time and it might have required a little more patience, but it would not have caused what we are going through today, if they had taken that step. And if the grievance was just, I think the people of the state, if appealed to in the proper manner, would have seen that it was redressed. If we cannot depend on the people governing themselves we are in a very sorry plight indeed."

Judge Woods threw a bomb into the ranks of defense counsel when, after declaring that the levying of war is "to offer violence to the state or assault upon the state," he held that "war is levied either when the mobilization of a force of men takes place", such as at Marmet, "or when they begin the march." In this connection, the court called attention to the fact that he went further than he did in his rulings in the Blizzard case, "but it makes no difference," he added, "whether we fix the completion of the crime of levying war against the state at the beginning of the march from the rendezvous or at the mobilization." He went still further and asserted it as his belief that "the mobilization constituted the threat against the state."

"If there is guilt at all, there is individual guilt and this applies to every one who leagues in the conspiracy, who joins the forces or who marches with the forces, whichever way you put it. If the state proves the defendant was present with these armed men and was leagued in the conspiracy with them and that he was present in Logan county, within the jurisdiction of this court, they have introduced evidence of an overt act of treason."

After reviewing at length the indictment, the bill of particulars and the testimony by the state in support of both, Judge Woods declared that the motion to exclude the evidence presented by the state against Allen "presents a question concerning which the powers of the court are limited by well defined rules." He added that "the simple test of whether the court should sustain or overrule that motion is whether there is evidence before the jury, which, if believed by them, proves facts which constitute the charge of the indictment. If the evidence before the jury-considered as true, as it would have to be considered on a motion of this kind-shows the evidence of facts which constitute the levying of war against the state on the part of this defendant, then the court would have to send the case to the jury and let the jury determine as to the truth or falsity of the evidence introduced in support of the necessary facts, so far as these facts are alleged in the indictment."

What is regarded by attorneys as another important section of Judge Woods' latest opinion makes every man who assembled at Marmet equally guilty as the leaders, if treason was committed. In this connection, the court held:

"Can you accept the idea suggested in argument that only those who direct are guilty of an overt act and that those who merely obey are not? That a leader who says, 'Do this,' or who says, 'Go,' has committed an overt act, but that the man who does what he is told to do or goes where he is told to go has not committed an overt act? One is just the means to the end. The officer directs and the men obey. They are doing the same thing. They are all performing their separate parts. They are all together. The men do the marching. They go. They execute the commands of the leaders who give the orders. Of course, morally, and probably every other way, the leader, as a general principle, ought to be held more guilty than a mere follower, but it is just a matter of degree. They are both guilty. That is all the court is asked to do here—to determine whether the defendane is guilty in any degree."

In concluding, Judge Woods said he did not see "any ground that would justify" him in taking the treason case of Walter Allen from the jury.

Allen is the third successive defendant convicted by juries in Jefferson county on charges growing out of the armed march. Rev. J. E. Wilburn and his son, John, were found guilty of second degree murder for the part they took in the killing of three Logan deputy sheriffs by a part of the same armed men on Blair mountain August 31, 1921. William Blizzard, the first to be tried, was acquitted of treason. C. Frank Keeney, president of District 17, United Mine Workers, is to be tried next on an indictment as an accessory before the fact in the murder of the three Logan deputies. The date of his trial has been set for October 23. Keeney is also indicted for treason and conspiracy.

Flour Industry of Growing Importance in Texas— Output of Flour and Feed Mills for Twelve Months Placed at \$130,000,000.

Dallas, Texas, September 9—[Special.]—Despite decline in prices from 1921 the value of the output of Texas flour and feed mills for the year ended September 1 was \$130,000,000, an increase of 7 per cent over the output of the preceding year. The industry is taking its place among the leading state industries. Millers have millions of dollars already invested in plants, and are enlarging now at heavy cost to take care of the exceptional business offered. Many have extended their operations to adjoining states and are doing business with foreign countries.

A tabulation of the flour output of the various milling centers for the year follows, the figures being in barrels: Dallas, 1,000,000; Galveston, 750,000; Kell Mills, 736,000; Fort Worth, 700,000; Sherman, 650,000; Gainesville, 400,000; Houston, 400,000; San Antonio, 300,000; Plainview, 200,000; New Braunfels, 300,000; other mills, 3,000,000. This makes the combined output more than 8,400,000 barrels.

The meal output for the year ended September 1 was about 600,000,000 pounds, valued at approximately \$12,000,000. The various mills' output of products including corn chops, barley chops, hominy feed, chicken feed, etc., was valued at \$50,000,000.

Business Analysis by Counties.

The Wm. H. Rankin Company of Chicago has recently compiled a handy book giving important statistical facts of interest to business men. The report shows for each county in the United States the respective values of farms, of crops and of manufactures, the white population of the county, the number of automobiles registered, and the mileage of all roads. The figures for surfaced roads are also recorded separately. All of the preceding figures are taken from the latest available official statistics. An estimate has also been made of the total income tax paid by the people of each county. The summary for each state includes in addition to the items given for counties, a record of the chief facts concerning the climate.

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Chemical Industry Gives Demonstration of Present Strength and Vigor of Purpose.

MOST IMPORTANT EXPOSITION YET HELD BY ORGANIZED CHEMISTS OF AMERICA — STRIKING FEATURES OF ANNUAL MEETING LAST WEEK IN NEW YORK.

[Special Correspondence Manufacturers Record.]

New York, Sept. 15.

A great industry, undaunted by the adverse conditions during the past year and ready for the return of prosperity, was in evidence at the Eighth Annual Exposition of the Chemical Industries, held in Grand Central Palace this week. Four floors of this huge building were filled with the diverse products of American factories in 400 exhibits, each bearing evidence not only to the skill and ingenuity of American scientists, but also to the courage and foresight of American business.

Any lingering doubts as to the ability of the chemical industry to keep up the impetus it gained during war-times were dispelled after a visit to the exposition, which showed that not only were rapid strides being made in the synthetic, organic and other branches of the industry, but that makers of equipment were keeping pace, and were proving themselves equal to the task of fitting out a new industry so well that it could continue its progress unimpeded.

The highly technical nature of many of the exhibits did not prevent the public from taking a great deal of interest in the show, and the wide aisles of the Palace were daily filled with sightseers. Exhibitors said that the class of attendance was the highest it had ever been; that intelligent interest was displayed in the booths and that by far the greater part of the people who visited the exposition were directly interested in the chemical industry.

Last year the exposition was on one floor of a huge armory building, making it more imposing in appearance than this year, but the Grand Central Palace is well located, and arrangements are already under way for the holding of next season's exposition here.

The exhibits this year ranged from booths filled with delicate glass instruments to miniature plants in operation, from booths like that of the Egyptian Lacquer Company, abloom with every color and tint, to showings of huge brown clay containers for acids, large enough to contain Ali Baba and most of his forty thieves in a single jar. One of the most interesting booths was that of the Technical Photographic and Microscopical Society, showing the remarkable use to which the camera is being put in industry.

There were exhibits, too, of the United States Department of Commerce, of the Department of Agriculture, and of the Bureau of Mines, Department of the Interior. Of the latter two, one related to the prevention of dust explosions, the other to safety devices for mines. The Canadian Department of the Interior was represented by an excellent display of ores and other natural resources.

Emphasis was laid upon fuel substitutes and fire prevention at this year's Exposition and the many attractive booths relating to these two subjects were always the center of a crowd.

In addition to the group meetings every evening and conferences every afternoon, there was a daily showing of motion pictures upon technical subjects that proved unusually interesting.

A striking and important development during the past year was announced by Dr. John E. Teeple, president of the New York Chemists Society, and treasurer of the American Chemical Society, when he told of the successful operation of a full-sized nitrogen fixation plant by the Allied Chemical Company at Syracuse, N. Y. He said the plant clearly foreshadowed the independence of the United States

in the matter of nitrates. At present, it leaves the Chilean nitrate industry free to furnish this country with fertilizers, while it supplies the needs of industry.

Another development sketched by Dr. Teeple was the establishment at Marshall, Texas, of a plant for the manufacture of a decolorizing carbon. The plant is owned by the Darco Corporation, a subsidiary of the Atlas Powder Co. Its present production is 20 tons a day, and this is already reducing materially the importation of norite carbons from Germany, Austria, and Holland.

A vegetable carbon shown for the first time by the Industrial Chemical Co., with plants at Tyrone, Pa., is of especial interest to the South because of its high value in clarifying sugar, syrups, and such oils as peanut and cotton seed. The company claims that even the small sugar maker can clarify his own product with the new carbon, enabling him to hold it for better prices and to receive larger profits for his finished product.

The South made an excellent showing at the exposition. The Southern Railway, which has had many attractive exhibits in the past, enlarged its space this year, and had on display nine tons of minerals in specimens that ranged from the size of a small pebble to huge pieces of ore and marble weighing up to a hundred pounds. This booth set forth strikingly the vast potential wealth of the South in minerals and raw materials for use in the chemical industry, and showed equally as strikingly how little exploited all this great wealth has been up to the present time.

There were ores of iron, copper, zinc, gold, and silver, oilbearing shales as rich as 80 gallons to the ton; abrasive garnet, marbles and other building stones; a new mineral, baukite, discovered in Tennessee with a binder clay near by, which is a perfect refractory material, and can stand a temperature up to 4000 degrees Fahrenheit without cracking; a clay from Alabama that may be used for tanning hides, and bauxite, from which aluminum is made. Water-power is available for the operation of enterprises in connection with most of these minerals and raw materials. More and more of them are being exploited, but the surface has not even been scratched, and billions of dollars of wealth are stored in the veins of Southern states for posterity.

Another interesting exhibit from the South was that of the Federal Phosphorus Co. of Birmingham, which has in successful operation a plant producing high-grade phosphoric acid under a new process. It also produces fertilizers.

Its plant is at Anniston. It uses electricity from waterpower, coke from the Birmingham district, phosphate rock from Florida and Tennessee, and it ships through nearby Southern ports, such as Pensacola, Mobile, and New Orleans.

The Texas Gulf Sulphur Company, whose plant at Gulf, Matagorda county, Tex., is among the largest in existence, and which turns out annually more sulphur than was produced in the entire United States prior to 1914, also had an attractive exhibit, showing the commercial importance of sulphur, and telling of the vast deposits along the Gulf Coastal plain.

The Davison Chemical Company, of Baltimore, had an elaborate exhibit showing the silica gel process of refining oils, with a background of paintings of its Baltimore plant. Another Baltimore corporation with a handsome and interesting display was the U. S. Industrial Alcohol Co.

The Southern Cotton Oil Co., with a diversity of its many

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products on display; the Myles Salt Co. of New Orleans, the Tennessee Copper Co., and the Southern Agricultural Chemical Company, the Freeport Sulphur Co., of Freeport, Tex., the Baltimore Copper Smelting and Rolling Co., the worlds largest copper plant, the Glamorgan Pipe and Foundry Co., of Lynchburg, and the National Rosin Oil and Size Co. of Savannah were among the other Southern exhibitors whose booths compared favorably with the best at the Exposition.

Notable addresses were made at the various meetings by such men as Herbert Hoover, Secretary of Commerce; J. M. Wainwright, assistant Secretary of War; Brigadier General Amos A. Fries, head of the Chemical Warfare Bureau; Dr. Charles S. Herty, chairman of the sessions held during the Exposition; Wayne B. Wheeler, counsel for the Anti-Saloon League; and Senator Ransdell of Louisiana.

Choosing for his subject the coal strike, Mr. Hoover spoke before the dinner of the Salesmen's Association of the American Chemical Association. He strongly favored the appointment of a non-partisan commission to investigate the industry, and to gather data upon which solutions might be based. He said the public's interest in the strike had been neglected, and that a good, strong arm was needed to force both sides of the controversy to realize that they could not jeopardize the industrial life of the nation with impunity.

"Some examination of our industrial sanity is called for," he declared, "when the public can be made the victim of infinite loss and suffering by such disagreements as we have witnessed; when the whole nation once every two years can be pushed to the precipice of want and commercial collapse." Mr. Hoover said laws against commercial combinations had hampered employers and helped trade unions, and urged that it be made impossible for anything like the disaster of the present summer to recur.

The address of General Fries was of special interest to the South because he forecast the conquering of the boll weevil by the genius of the American chemist. He said the ravages of war could be repaired, in part, at least, by using the knowledge acquired on the battlefield to combat animal and insect pests and cited the good work that had already been accomplished against rodents by the Chemical Warfare Bureau, and also the experiments they were making in the use of poison gases and liquids against insect pests such as the ship-worm, the Philippine locust, certain moths, and weevils. He declared that victory over the boll weevil alone would pay for the life of the Chemical Warfare Bureau for generations.

Dr. Herty said chemistry was a key industry, the first to feel business depression, and the first, likewise, to feel an upward trend. He said the industry at present showed unmistakable signs of approaching an era of unexampled prosperity. He outlined the hard fight that synthetic organic chemistry had had during the past twelve months, in the face of falling exports, the uncertain attitude of Congress on the tariff, and the persecution of the Chemical Foundation by the Department of Justice. He defended the Foundation and its President, Francis P. Garvan, warmly, and asserted that the synthetic industry was one of too great value in peace and war to be allowed to lose its present standing.

Mr. Wheeler, who spoke on the attitude of the Anti-Saloon League toward the manufacture of industrial alcohol, said the League was willing to lend its best efforts to this industry, which he prophesized would become one of the greatest in the country.

He said the 18th Amendment had come to stay, and that the sooner all manufacturers of alcohol realized this fact, the quicker the industry would be relieved of any hampering restrictions, which, he asserted, were already less strong than they were before the coming of prohibition. "The future of the industry," he declared, "lies in the hands of the mon who are investing their money and brain power in it. It can be made the greatest of its kind in the world. Friends

of prohibition and makers of alcohol should work together to bring about this end."

Mr. Wheeler referred to the plant of the U. S. Industrial Alcohol Company in Baltimore, the largest of its kind in existence, as an evidence of what the industry could become. He predicted the use of alcohol as motor fuel.

Senator Ransdell explained why he voted for a high protective tariff upon chemicals and drugs and urged the makers of these products to let world markets alone, and to devote themselves to supplying all the needs of the United States, which, he said were sufficient to keep the industry active and prosperous. He said the fight for foreign markets, and overproduction were two of the causes of Germany's effort to conquer the world, and urged against a similar error on the part of American manufacturers.

Mr. Wainwright told of the intimate relation between the chemical industry and the national defense and sketched plans of the War Department by which accurate data were accumulated for use in war-times. He bespoke aid for the industry, both because of its value to the country in a business way, and because of its ever-increasing importance in war.

Meat and Cereal Exports.

Exports of wheat and flour in July were equivalent to 19,098,000 bushels, an increase of nearly 5 per cent over June and the largest for any month since last November. Exports for the first seven months of this year are about 45 per cent less than for the same period of 1921. Exports of com, including meal, amounted to 14,395,000 bushels in July, a marked increase over the preceding two months. Exports of corn for the seven months of 1922 have been about 63 per cent greater than a year ago. Exports of oats declined from the high mark reached in June but are still far above the average per month.

The total exports of all cereals in July were equal to 43,438,000 bushels, or approximately the same as in June. Measured in this way our cereal exports so far this year are 3 per cent less than a year ago.

Exports of beef products totaled 15,281,000 pounds in July, a decline of about 5 per cent below the June figure and less than in July last year. Cold-storage holdings of beef also declined and were only a little more than half as large as on August 1, 1921. Exports of pork products increased about 11 per cent over June. Cold-storage holdings of pork totaled 827,966,000 pounds on August 1, 1922, compared to 861,636,000 the month before and 972,059,000 pounds at this same time last year.

300 New Dwellings for Columbus in Past Year.

Columbus, Ga., Sept. 13—[Special.]—According to Secretary F. W. Armour of the Columbus Real Estate Men's Association, more than 300 new homes have been constructed during the past 12 months in this section at a cost of over \$1,000,000. Many business houses also have been completed. A six story office building has been finished for the Kyle-Swift interests, the Dimon Court Apartment has been finished at a cost of \$150,000 as well as a \$500,000 round house for the Central of Georgia Railroad, and a new \$200,000 concrete bridge over the Chattahoochee River, together with other structures costing \$25,000 each and up.

Texas Manufactures for Year Total \$1,000,000,000.

Dallas, Texas, Sept. 1—[Special]—According to figures recently made public by the Texas Industrial Congress there are 5724 manufacturing industries in the state, employing 107,529 persons and producing goods to the value of a billion dollars yearly.

Petroleum refining is the chief industry, followed by cottonseed oil and cake mills, flour and grist mills, and lumber and timber mills in the order named. 1922

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Forty Per Cent Gain in Southern Building Shown by Permits for First Eight Months This Year.

Comparative Statement of Building Operations South.

Building permits issued in representatives cities and towns in the sixteen Southern states during the first months of the various building inspector's departments just completed by same cities in June. Then, too, the normal seasonal slump

the Manufacturers Record. Despite the unfavorable conditions resulting from the coal and railroad strikes which 1922 had a total valuation exceeding by more than 40 per were most severe during July, the rising cost of building cent the total for the same cities during the corresponding materials, and the impending shortage of both materials and period of 1921, according to a compilation of returns from labor, July permits are practically equal to those of the

		arative State ne, 1922.		Building, 1922.		South. , 1921,	Augu	st, 1922.	Aus	gust, 1921.
Alabama. Birmingham	432	592,737	417	711,925	360	404,458	465	792,991	408	433,286
Montgomery Arkansas: Little Rock	48 183	34,070 231,539	77 45	47,471 162,740	210	562,017	201	263,972	146 241	65,317 232,859
Fort Smith	70	109,000 116,291	47	51,919	35	46,678 66,400			62 28	$105,092 \\ 64,125$
Pine Blut District of Columbia: Washington	1,055	5,910,785	917	6,536,757		1,271,620	968	4,043,095	805	3,308,485
lorida:	324	626,613	236	505,553		497,406	291	719,494	316	510,558
orida: Jacksonville Miami Orlando Pensocola Tampa W. Palm Beach Palm Beach	182	616,844 87,323	166	367,400 56,365	201	475,900 56,365	175 73	998,700 56,233	204 110	396,200 291,305
Pensocola	56	30.117		20,689	87	94,703 226,616	66	25,933	79	52,324
W. Palm Beach	226 115	206,720 257,705	191 76	$214,786 \\ 202,675$	266 36	137,057	220	281,979	260	364,838 81,175
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orgia ·	20	64,950	23	100,700			39	141,310	* * *	*****
Atlanta	315 159	1,374,516 $145,765$	454 196	1,208,226 $652,563$ $73,700$	241	1,948,322 149,058	502 176	1,905,197 $701,684$	241	634,323 149,058
Columbus	13 176	$32,000 \\ 125,025$	23 177	73,700 118,398	49	43,615 55,846	34 216	34,210 $422,534$	93	76,040 114,705
Augusta Columbus Macon Savannah Brunswick	53 25	154,375 9,035	67	164,500	76	254,862	57 17	77,365 153,100	73 32	136,965 14,745
ntucky:			240	1,059,950	270	703,000	421		297	548,150
Louisville Lexington Covington	409 87	1,577,950 $501,836$	342		54	63,355	72	1,243,365		69,845
Paducah	85 30	550,350 37,320	62 13	198,500 $24,250$	47	68,850	72 22	106,200 36,800	67	239,740
nisiana:	321	1,238,025	340	1,880,839	262	761,350	252	735,495	321	960,050
ShreveportLake Charles	237 29	355,160 33,203	27	67,724		268,245 33,100	25	37,185	264 38	427,075 53,500
ryland: Baltimore	2.055	2,206,920	1,843	4,226,526		1,937,200	1,901	3.620,100	1,685	2,301,240
Cumberland Frederick	49	148,656	38	84,138	40	84,684	58	130,900	53	113,160
ississippi :		* * * * *	* * *		8	9,235		*****	14	37.050
Meridian Jackson	69	49,500	71	65,500		9,757	81	206,500	35	55,925
ssouri: Kansas City	534	2,758,200			412	926,300			208	2,613,350
Springfield	69 98	218,440 $117,505$	61 75	93,400 155,025		70,840 58,930	62 84	112,975 $132,550$	90	194,865 207,255
Springfield St. Joseph St. Louis orth Carolina:	1,234	2,436,755	1,154	1,985,947	1,093	1,118,215	1,341	2,206,670	1,151	4,307,206
Asheville Durham	95 37	258,562 105,425	110 33	190,406 $111,050$	66	81,650 $200,425$	87 33	198,662 $131,990$	106	212,126 67,310 55,950
High Point Charlotte	26 53	305,500	46 62	149,655 1,515,230	16	40,460 159,800	37 61	217,325 319,540	29 41	55,950 319,540
Raleigh	17	482,676	17	181,550	31	53,145	29		31	
Wilmington Winston-Salem	145	77,500 274,752	130	55,400 310,788	103	$80,000 \\ 117,380 \\ 129,250$	132	105,000 $241,935$	113	206,000 132,832
Greensboro	62	2,309,995	58	173,833			59	139,780		145,825
Oklahoma City	236 204	476,561 $1.050,250$	202 189	835,880 1,685.600	118	561,220 $252,295$	243 172	582,550 1,126,600	297 124	791,976 245,985
Muskogee	41 26	86,866 103,000	29 33	64,600 122,600		48,900	31 18	123,345 132,600	27	68,250
Tulsa		41,982		*****	* * * *	38,738 42,960			30	37,144 68,825
uth Carolina;	55	233,076	54	1,161,000		85,550	42	163,893	33	56,935
Charleston Columbia Greenville	110	118,660		64,553	3 111	155,732	37	128,300	160	88,624
Spartanburg	42 61	171,223 81,055	38 36	169,436 16,945		125,045 $41,625$	31	59,960	60	126,855 44,490
ennessee: Knoxville	258	688,890	214	367,350		205,249	203	298,346		253,450
Memphis	203 439	213,961 1,304,640	155	177,35	334	155,732 1,101,918	369	1,531,740	111 297	155,732 $1,010,926$
Nashville	316	305,416	373	1,010,760	319	531,582	281	668,509	393	647,957
Houston	647 387	1,339.822 378,956	529 336	1,624,373 114,829	649 486	689,049 115,606	306	856,114 102,049	726 484	926,552 305,115
Galveston El Paso	99	334,640	127	617,34		187,284	89	250,855	163	504,558
Dallas Fort Worth	358 255	$1,533,046 \\ 636,812$	304 85	1,409,445 510,77	9 179	1,289,029 $258,614$	451 268	1,687,732 801,330	419 219	1,602,924 $491,521$
Beaumont	44	110,195		324,25	56	623,789 88,495	27	37,580	21 51	73,464 509,264
Amarillo	43	73,564 166,800	45 24	565,221 166,45		244,844 86,650	42	144,350	49 33	134,605 87.450
Port Arthur	109 337	105,000 430,995		509,78	. 87	42,899 422,020	365	524,810	113 390	48,144 1,560,795
Port Arthur San Antonio Abliene Corpus Christi		44,300		26,300			* * *			26,300
irginia : Richmond	000		150			428,220	237	886,950	226	893,182
Norfolk Lynchburg	263 159	1,803,631 602,408	178	537,56 247,49 96,41	3 93	316,381	143	475,940	147	446,127
	172	504,280	127	96,413 242,57	3 26 3 135	75,675 199,097	57 152	64,626 343,051	$\frac{34}{119}$	37,810 147,692
Charleston	118	409,918	93	224,42	5 124	302,610	88	354,330	128	328,650
Wheeling	129 132	262,594 351,505	120 108	432,000 449,37	128	234,870 97,685	129 129	244,605 265,348	134 83	246,833 96,026
Bluefield	81	414,778	87	71,14		92,100	44	109,645	31	147,425

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in activities appears in July and August, but with all these untoward conditions the decline during August from the preceding month was less than 17 per cent in valuation.

Reports from fifty-seven cities give a total approximate value of permits issued in August, 1922, of \$30,476,088; for July \$36,324,378. In August the total for fifty-eight cities was \$32,616,547, compared with \$28,994,543 for August 1921.

Thus a gain of more than 12 per cent is shown over the same month last year.

Reports for July 1922 from sixty-two representative cities and towns showed permits issued with a total valuation of \$37,809,132 contrasted with the total of \$20,228,652, for July 1921. The July figures therefore represent a gain of more than 85 per cent over the same month last year.

THE RISING TIDE OF BUILDING ACTIVITIES IN THE SOUTH



Recent photograph of skyline at Houston, Tex., showing great expansion of office building to meet urgent demands of increasing industry, trade and commerce, typical of conditions in South today—Rice Hotel and City Hall in extreme background to right; Post Office and Custom House at foreground, extreme left.

Two New Cement Plants Announced for Alabama Will Practically Double State's Production—Yearly Output Now 2,200,000 Barrels.

Birmingham, Ala., Sept. 16—[Special.]—Definite announcement has been made that the Lehigh Portland Cement Company, whose main office is in Allentown, Pa. will begin immediately the construction of a plant to have a yearly capacity of approximately 1,000,000 barrels of cement. This announcement follows the recent awarding of a contract for a 1,500,000 barrel plant for the Phoenix Portland Cement Co. in the same locality.

Other cement plants in Alabama include the Atlas plant at Leeds with a capacity of 1,000,000 barrels, the National Mills at Ragland with an output of 750,000 barrels and the Gulf States plant at Demopolis producing 300,000 barrels, these three plants giving a yearly output for the state already of 2,050,000 barrels. In addition the Southern Cement Co. plant in North Birmingham produces 150,000 barrels of slow setting cement which brings the annual output in Alabama to 2,200,000 barrels, and the completion of the two plants now under way will practically double the output.

For more than two years Alabama cement plants have been taxed to capacity to meet the demand for building operations of all kinds in the Southeast. The new plants are the result of this demand.

The Lehigh plant will be located on a large tract of land within a radius of five miles of the center of the city. It was acquired about two years ago, and contains an extensive limestone deposit. The favorable railway distributing facilities and the availability of the raw materials and coal led to the location in this city. The company now owns and operates 15 plants in various parts of the country, and the Birmingham unit will permit it to market its product in a territory which heretofore has not been accessible because of freight disadvantages.

\$2,000,000 Building Program at Asheville.

Asheville, N. C., Sept. 16—[Special.]—This city is in the midst of the biggest building beem in its history with more than \$2,000,000 in construction projects now under way and indications that the volume will steadily increase. In addition to the erection of residences costing over \$600,000,

building projects of every kind are going ahead. About \$370,000 is involved in schools for North Asheville, South Asheville, Catholic Hill and West Asheville, and this figure is exclusive of the purchase price of the sites. These schools will all be completed by next February. Improvements are being made to other schools at a cost of over \$80,000, and 19 additional classrooms added to the West Asheville school. One \$170,000 structure is nearing completion at the Normal School.

The new wing of the Mission Hospital is half complete and will cost about \$220,000, and expenditure of \$160,000 is being made at the Y. M. C. A. building. Many business structures costing from \$5000 to \$25,000 are under way.

Texas State Institutions to Ask for Large Sums for New Buildings.

Austin, Tex., Sept. 16—[Special.]—It is estimated that the total to be asked of the State Board of Control and the Legislature as appropriation for all the state institutions and departments will go to \$45,000,000. That an extensive building program at the various eleemosynary institutions is planned is clearly indicated by the requests which run from \$850 to close to a million dollars for each institution for the next two years. Among the outstanding sums are the following: Orphan's Home \$140,000; Trade School \$150,000; Juvenile Training School \$196,000; Negro Deaf, Dumb & Blind School \$150,000; Tuberculosis Sanitarium \$180,000; Feeble Minded Colony about \$400,000; Epileptic Colony about \$300,000; Insane Hospital, Austin, \$1,181,500; Insane Asylum, \$anantonio \$230,000, Terrell Insane Asylum \$200,000; Rusk Insane Asylum \$350,000; Wichita Falls Insane Asylum \$500,000.

Increase in Leather Belting Exports.

The United States during July, 1922, exported 61,860 pounds of leather belting which was 18.5 per cent more than the quantity exported during July of 1921, according to figures compiled by the Boot and Shoe Division of the Department of Commerce.

The volume of leather belting exported by the United States the seven months ended July, 1922, amounted to 518,776 pounds which was slightly less than the quantity (524,262 pounds) exported during the corresponding month of the previous year.

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Alabama Power Company Building New Type of Hydro-Electric Plant on Coosa River-Ultimate Development to Be 120,000 Horse Power.

A number of novel features are embodied in the construction of Mitchell Dam at Duncan's Rifle on the Coosa River, the latest project of the Alabama Power Company of Birmingham, which will be producing electric power in January, 1923. At the point where the new dam is being built, fourteen miles below Lock 12, the initial development completed in 1914 on the same river, the width is 1200 feet, and the structure will raise the water in the river 70 feet to an elevation of 350 feet and the lake behind the dam will be extended to Lock 12. Thus, the dam forms one unit of the proposed system of locks and dams which will ultimately make a navigable waterway from Mobile to Rome, Ga.

The site is ideal for the construction of a dam, as the bedrock of the entire area in the vicinity of Duncan's Riffle, including the river bed and abutments, is a hard, resistent hornblende rock. Therefore in order to prepare the dam foundation it has been necessary only to scale off the weathered rock near the surface, except of course where water passages have necessitated deeper excavations.

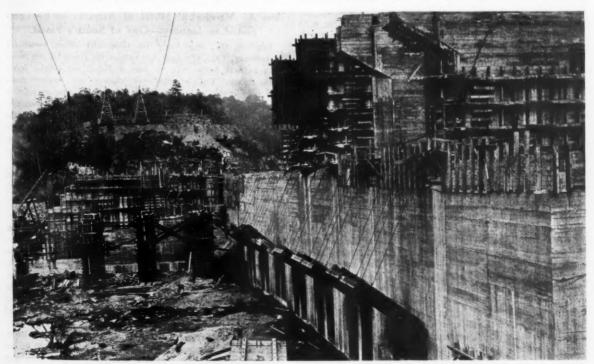
The ultimate capacity of this new project will be 120,000 horsepower, and so great has been the recent increase in the demand for electrical power that officials of the company estimate that within a year after its completion the entire power load will have been absorbed. Hence, to insure an adequate supply of power for future industrial developments of the state and vicinity, preliminary work has begun which will ultimately result in the development of 140,000 horsepower on the Tallapoosa River, four separate dams now being contemplated.

Three water wheels of 24,000 horsepower each will be in-

stalled initially at Mitchell Dam. A leading feature of the work is that there will be no power house of the conventional type; each unit will be installed in a separate concrete structure placed up stream from the dam. Draft tubes will pass under the dam, with orifices immediately down stream from the apron of the dam. The reason for this design will be clear from a consideration of the limitations of the old type of plant. Often during flood conditions, the accumulation of water below a power house dam causes the tail water to rise. thus reducing the head on turbines, and the plant output is reduced even at a time when there is an abundance or a superfluity of water. In studying this problem, O. G. Thurlow, chief engineer of the power company, designed his back water suppressor as a solution. This device makes use of the energy of the water wasted over the spillway to sweep the back water down stream, driving it away from the draft tube openings. By this method the turbines can operate at full head under practically all conditions of stream flow. Not only has the back water suppressor been proven theoretically correct but in two experimental models good results have been obtained.

The dam itself is of straight gravity section. It will be 1200 feet long, 74 feet wide at the base, and 55 feet wide at the spillways. The dam and power house will contain 200,000 cubic yards of masonry. For stream control there will be 26 Tainter gates, each 15 feet high by 30 feet long, and the water in the fore bay will normally stand at an elevation at the top of these gates. The water wheels will be operated under a head of 70 feet.

The electrical units will be 20,000 kva, 100 r.p.m. 6600



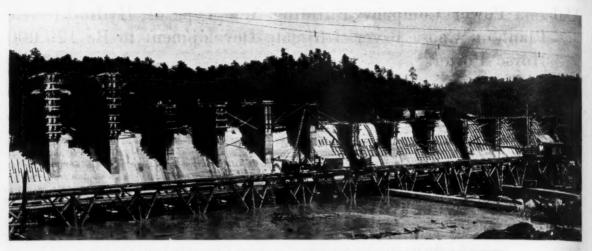
UP-RIVER VIEW OF 1200 FOOT DAM NOW BUILDING ON COOSA RIVER.

This dam, of the straight gravity type will be 1200 feet long, 74 feet wide at the base, and 55 feet to the spillway. For stream control there will be 26 Tainter gates, each 15 by 30 feet, and the water in the forebay will stand at the top of these gates, permitting the water wheels to operate under a head of 70 feet.

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MITCHELL DAM OF ALABAMA POWER CO., WHICH WILL DEVELOP 120,000 HORSEPOWER.

Complete dam and power house will contain 200,000 cubic yards of masonry. There will be no powerhouse of the conventional type. Each unit will be installed in a separate structure, up-stream from the dam. A Thurlow backwater will permit the operation of the turbines under full head, regardless of stream flow.

volts, vertical generators driven by 24,000 horsepower turbines. The water from each wheel will discharge into a double draft tube, each passage of which is 24 feet by 20 feet high.

Connected to each generator will be three 7500 kva, 6600/100,000 volt transformers. Between transformers and 110 kv busses will be a 110 kv oil circuit breaker. Each generator with its bank of transformers and circuit breaker is treated as a separate unit. All transformers and the necessary 110 kv equipment will be located out of doors on a deck above the dam. Only generators, auxiliaries, switchboard and low tension apparatus will be under cover.

Built over each generator will be a separate building with a removable roof that can be rolled back. All of these buildings will be spanned by a 125 ton gantry crane, which will be so placed that it can handle turbines, generators and transformers and also manipulate gates and stock logs.

A standard guage railroad, 8 miles long, constructed by the company, connects the job to Coopers, Ala., which latter town is located on the Louisville & Nashville Railroad running between Birmingham and Montgomery. The construction plant has been laid out so that electric power can be economically applied wherever possible, and in order to insure a supply of power it was necessary to build a 44 kv transmission line, 12 miles long from Lock 12 to the present dam site.

A large quarry has been developed for furnishing aggregate for concrete; it is located on the west bank of the river about 2000 feet below the scene of operations. The face of the quarry is 150 feet high; drilling is being done by means of electrically driven well-drills operating along the line about 30 feet back from the edge of the bluff. A steam shovel equipped with a 21/2 yard dipper delivers the quarry stone into side dumped cars. Cyclopean stone is loaded on flat cars by means of a locomotive train of 20 tons capacity. The quarry rock is the hornblende, identical with that found in the foundation. Side dump cars of 5 yards capacity, drawn by 8 ton electric mine locomotives are used to carry the rock from the quarry to the crushing plant. The locomotives are operated at 250 volts, using a protected third rail as a collector. To facilitate handling material the electric traction system has been extended to every part of the job.

Most of the power initially developed will be absorbed in the Birmingham district, and in order to distribute this a double circuit field tower transmission line is being built from Mitchell Dam to Lock 12; additional lines will probably be constructed from the latter project to the load center. All new transmission lines will tie-in with the present transmission line net work. The building of a new 110 kv line to run south and east from the new dam to the territory adjacent to Lanett, Ga_{ψ} is now being considered. Work was started on this project in July, 1921, and with the beginning of actual operation in January, 1923 another large lock of hydro-electric power becomes available for operating diversified industries in a fast growing section of the South.

Bon Air-Vanderbilt Hotel at Augusta to Be Completed in January—One of South's Finest.

Augusta, Ga., September 16—[Special.]—When completed in January, 1923, the Bon Air-Vanderbilt Hotel of 300 rooms with private baths will be one of the finest tourist hotels in the South. Built of reinforced concrete with concrete floors and roof slabs it is fireproof throughout. The exterior is of pale gray stucco with tile and brick inserted for decoration. On the first floor is the main lobby, 40 by 120 feet; the office is located at one end near the dining room with the elevators and stairs directly in the center. The dining room has accommodation for 600 persons. There will be three passenger elevators and one service elevator.

Augusta enterprise and capital is building the new hotel which has been leased by the Vanderbilt Hotel interests of New York City.

Plan \$1,000,000 Bond Issue for Terminal Facilities.

Corpus Christi, Tex., Sept. 16—[Special.]—According to Roy Miller Vice-President of the Corpus Christi Port Development Association, a proposition will be submitted to the taxpayers of Nucces County for the creation of a navigation district to comprise the entire county, and for the issuance of bonds totaling \$1,000,000, the proceeds of which will be used in the construction of wharfage and terminal facilities at the port.

The Board of Engineers, in a recent report to Congress, recommended an appropriation of approximately \$1,400,000 to dredge a channel 25 feet deep and 200 feet wide from deep water at the jetties near Aransas Pass to Corpus Christi. But the appropriation for this work is made conditional upon the city providing the required wharfage and other terminal facilities.

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NEW STATE CAPITOL OF WEST VIRGINIA.



This great structure to be erected at a cost, with site, estimated at \$9,500,000, will be among the world's finest buildings. The Architect is Cass Gilbert, of New York. The style of architecture is Renaissance. The main building and the two wings will house the three departments of the state government, providing for every office in the state and making full allowance for the needs of the present and the distint future.

Reports from Building Inspectors Show Steady Increase in Construction in Leading Southern Cities.

Building activities in the South continue at high levels as indicated by reports from building inspectors in the larger cities in every state in this section. Besides the work now being undertaken, plans are in course of preparation for many projects to be started in the next few months. Indicative of the steady forward movement which continues despite the adverse conditions resulting from the strikes are the following brief surveys of building in Southern cities:—

St. Louis, Mo., issued permits to the value of \$2,206,670 in August, a gain of \$220,000 over the July total, and a \$900,000 gain over August, 1921. More than half of the new construction work is for dwellings, residential structures having a value of \$988,975.

Building in Miaml, Fla., exceeded all records in August when \$988,700 in construction was approved. The nearest approach to this high figure was June, 1921, with a building valuation of \$873,600.

Last month's building permits in Charlotte, N. C. reached a total of \$319,940 bringing the total for 1922 to date more than \$3,900,000, or almost double that for the whole of last year. Every class of structure is included in the total for August.

Louisville, Ky., building operations for the fiscal year ended

August 13, were more than double those for the immediately preceding similar period, and home building increased 154 per cent. From September, 1921, to August, 1922, the building valuation indicated by permits is \$13,915,000, contrasted with \$6,039,000 for the 1920-1921 period.

Augusta, Ga.'s building activity last month was the greatest in its history, the valuation exceeding \$700,000 which brings the total for the year to date to \$2,249,960. A \$600,000 hotel has just been started according to W. B. Brown, building inspector.

Construction of 514 residences and five apartment houses in Knoxville, Tenn., during the eight months of 1922 ended September 1, at an aggregate cost of \$1,844,288, is an outstanding item in a recapitulation of building activities there for that period. The total for all classes of work is \$3,185,000 contrasted with the total of \$1,938,000 for the same period of 1921.

Nearly \$1,000,000 is involved in the construction program at El Dorado, Ark. Several modern office and store buildings are being erected, also two \$160,000 churches. Contracts are shortly to be let for 12 additional miles of paving. Before January 1, more than \$2,000,000 will have been expended.

Anniston, Ala., is forging ahead in building work. In addition to scores of homes, a splendid high school building, two other schools, a large hospital and many business buildings are under way.

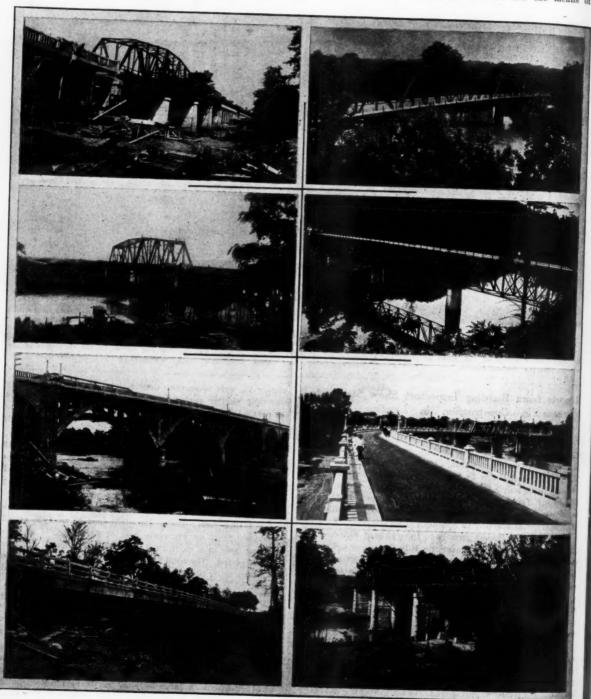
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TYPICAL HIGHWAY BRIDGE CONSTRUCTION IN GEORGIA.

Herewith are illustrations of a number of bridges now under construction across Georgia rivers, large and small. They show something of the extent and importance of this class of work in one Southern state and are altogether typical of this character of construction, which is making such rapid strides in many parts of the South. The bridges are of concrete, steel, creosoted timber and other permanent types adapted to the requirements of the particular stream and the conditions of traffic where the crossing is made.

These bridge developments involve the expenditure of many millions of dollars and serve to put the finishing touches to the important work of building main highways designed as arteries of travel between hitherto widely separated sections. Their social value is thus not an unimportant factor. Such bridges frequently bring together the people of two or more counties which formerly had to communicate commercially largely by roundabout and more costly methods of travel. These new structures often are the means of



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overcoming marshes and swamps at one time impassible and thus they play a large part in annihilating time and distance.

In the state of Georgia last year there were completed 1000 miles of roads and many important bridges were finished, while other structures started then are now approaching completion. Of 150 projects completed in 1921 more than 40 were bridge projects. One-seventh of the total expenditures for bridges in the United States in which Federal Aid funds participated has been expended in Georgia.

Practically all of the bridge work here illustrated has been done in co-operation with the United States Bureau of Public Roads under the direction of W. R. Neel, state highway engineer of the State Highway Department of Georgia, at Atlanta, and Searcy B. Slack, bridge engineer of the department.

In the upper left hand corner of the series of eight bridges shown opposite is the bridge, designated as Project No. 8, over the Oconee river at Mt. Vernon. This is a concrete trestle with concrete approaches and steel spans over the river, for which C. T. Dawkins Construction Co., Jacksonville, Fla., were the contractors.

Next below is Project 195, over the Altamaha river at Darien, which consists of two steel swing spans 245 feet long and 4400 feet of wood trestle, erected by Brooks-Callaway Co., Atlanta, Ga., contractors.

The third structure has been built over the Flint river at Albany as Project 81 with Prayton-Houghton-Wood Construction Co., contractors.

The Atkinson Construction Co., Thomasville, were the contractors for the bridge over Turkey creek, Pulaski county, designated as Project 113 and shown last in the first column.

Project 133, the bridge completed over the Chattahoochee river at West Point is illustrated at the top of the second column, and consists of three steel spans of 154 feet each with beam approaches. It was built by the Virginia Bridge & Iron Co., of Roanoke, Va.

Directly below it is the Tallulah river bridge in Rabun county completed by the Griffin Construction Co., Atlanta, and the Converse Bridge & Steel Co., Chattanooga, Tenn. It is known as Project 187.

The third structure shown has been completed over Okmulgee river at Hawkinsville as Project 78. It is 1927 feet long with a draw span 210 feet in length, with a concrete trestle approach. The contractors were C. T. Dawkins, Jacksonville, Fla., and the Pensacola Shipbuilding Co., of Pensacola, Fla.

At the lower right hand corner is shown the bridge that now spans the Flint river, and connects Taylor and Upson counties. Project 93, as it is designated, consists of steel trusses with steel approaches, erected by the Southern Bridge Co., contractors.

In the panel group opposite the first bridge illustrated is Project 59, over the Flint river at Newton, Ga., consisting of a steel lift span with steel approaches.

Second in this group is the Apalachee river bridge in Walton county completed by Stein Construction Co., Chattanooga, Tenn., as Project 69.

Below it is the steel structural bridge built over Yadkin creek in Lumpkin county by Austin Bros. Bridge Co., Atlanta, Ga.

Project 48 is last in this series. The bridge extends over Oconee creek, Clark county, and consists of seven deck girders each 54 feet long. The contractors were the Foundation Co., New York City.

August was the biggest month in the building annals of Jacksonville, Fla., where 291 permits for construction involving the expenditure of \$719,494 were issued. Sixty-six new dwellings costing \$207,810, and a \$225,000 apartment house are included. Practically all of the permits were for new work, alterations and additions aggregating but \$40.450.



Convention Hall Contract Awarded.

Bartlesville, Okla., Sept. 16—[Special.]—Contract for the Community and Convention Hall for this city has been awarded the Bellows Construction Co. of Oklahoma City, at a cost of \$237,500. The Sells-Orr Heating and Plumbing Company, of Independence, Kan., were the successful bidders for plumbing, heating, and ventilating. The Keener Electrical Company, of Bartlesville, was low bidder for the electric work. The building will provide an auditorium with a seating capacity of 2100, a basement that can be used as a drill room; banquet rooms, club and reception rooms, kitchen, offices for civic orgaizations, and other features.

NEWS AND VIEWS FROM OUR READERS

[Publication in this department of letters from our readers does not mean that we either approve or disapprove the views expressed. We believe in a full and frank discussion of the mighty questions of the hour, for only in this way can the truth be found. Therefore we often publish letters with which we do not agree.—Editor Manufacturers Record.]

Would Have Government Establish a West Point for Training Railroad Workers.

J. B. SMYTH, President and General Manager, Sabine Tram Company, Beaumont, Tex.

I have been reading your paper for several years and I have always found you on the right side in all of your writings.

I have just read your fore-piece on your August 31 issue. It is fine, but I differ with you in some of it. I think a man has the right to strike in most things, but of course, a railroad is different from anything else where men are employed.

I think that the Government years ago should have prepared to take care of the situation in case of a strike by having an institution like West Point to teach men how to operate any part of our railroad systems.

Now is the time to start such an institution. Once this is in operation, no more strikes will be called on railroads, for they would know that the Government can replace them in short notice. We need men to man our trains as well as soldiers and seamen to protect us. There is no difference.

My idea would be for the Government to buy some freightcarrying railroad, such as the coal mines have, so as to give the men actual experience and at the same time doing good in handling this freight.

They could have one year's course in the mechanical end of it, and then teach them how to operate the trains, at the same time keeping their own equipment up. There is not one out of ten locomotive engineers who can keep his engine up or fix it if it were broken down on the road so it could come in. If you strike a man of this kind, you will find that he is an "old head," or he is off of some logging road where they learn to do it all.

These men should be taught all, so if they could not get a position on the trains they could follow the mechanical end of it

For this free schooling the Government could require them to do anything they called on them to do for five years. In a few years, they would have thousands of such men all over our country, and then these men could be regarded as our soldiers are.

If you think well of my idea and think that such a thing can be started, now is the time for it, as our Congressmen and Senators will do more now than they would when this thing is partly patched up. I think that you can do more with such a proposition than any man in the United States today.

Southern Products Reaching World Markets.

R. O. McCord, Secretary, Cedartown Chamber of Commerce, Cedartown, Ga.

Enclosed check \$6.50 for one year's subscription to the Manufacturers Record, which please mail to the Cedartown Chamber of Commerce, Cedartown, Ga.

We have recently organized here for the purpose of advertising Cedartown's splendid resources along the lines of agriculture and industrial development. Among the local industries already under way of organization is a heading mill with something like \$20,000 capital. The Chamber of Commerce has also plans on foot to assist the farmers in their problems of marketing their products other than cotton, which at present is the one big problem facing the Southern farmer.

It might interest you to know also that orders are now being

received for Cedartown-made hosiery from Buenos Ayres in Argentina, and Montevideo, in Uruguay, as well as from Winnipeg and other points in Canada. Other products made in Cedartown are sold to every state in the union.

The Necessity of Prominent Warning Signals at All Important Railroad Crossings.

L. S. ALTMEYER, Orlando, Florida.

Will you permit me to add a suggestion to your article "More Crossing Signals Needed" in your issue of July 20, viz.

The railroad companies are conducting a campaign of education to show the dangers of railroad crossings, in which they have a display advertisement of an automobile being struck by a fast train at a crossing on a main highway. I think this picture is a splendid idea, and I am of the opinion that if this idea were carried out, and this picture placed in a suitable size at the crossings, instead of the cross-arms sign that has been used for so many years, that such a sign at crossings where there is considerable automobile travel, would attract the attention quicker, and that it would have a tendency to lessen accidents.

These signs could be of a uniform size, and could be painted on both sides so that only one sign would be required at a crossing. Used in connection with your proposed plan, I think they would bring the number of crossing accidents down to a minimum. Persons who would not give heed to such a warning, could be classed among those who were bent on committing suicide.

I wish to congratulate you on your articles on the disregard of the law. They should be copied in every paper and read at the meetings of every civic organization in the United States and action taken on them, and the President, Congress and every governor in the United States flooded with telegrams, letters, and more letters, until they would see that the law abiding citizens, and those who stand for law enforcement, are determined to have the law enforced.

Jurors in West Virginia May Come from Another County.

ALFRED D. PRESTON, Beckley, W. Va.

Your issue of August 31, on page 49, carries a letter voicing the view that the enforcement of law is hopeless so long as the county form of administration is maintained, because the local juries will not convict criminals.

Here in West Virginia, we have reached a partial solution of this difficulty by the provisions of Chapter No. 69, of the Acts of the West Virginia Legislature of 1921, at page 183. This act provides that in any criminal case in any court, if qualified jurors cannot be found in the county in which the trial is to be, such jurors may be summoned from any other county. So long as the court remains impartial and faithful to its duty, this procedure furnishes a way out of the dilemma mentioned by your correspondent.

The field tests made by C. R. Bopp, junior petroleum chemist, under the direction of T. E. Swigart, petroleum technologist of the Bureau of Mines, on the lease of the Osage Development Company in Oklahoma for determining the effect of back pressure on oil production are completed. A report of the investigation will shortly be issued.

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THE IRON AND STEEL SITUATION

Transportation Conditions Govern Situation at Pittsburgh.

Pittsburgh, Pa., September 16—[Special.]—Production of coal has now perhaps reached its maximum under present transportation conditions. In the Pittsburgh and Connells-ville districts the merchant production seems to be taken up entirely by the priorities, and possibly this is largely the case with the majority of districts. Thus there is little opportunity for the iron and steel industry to augment its coal supplies, except as individual interests may be able to mine and ship more of their own coal. Up to this date there has been a very comfortable increase in steel production, due to the industry getting more coal from its own mines.

The Institute report indicated that production of steel ingots during August was at an average rate of about 30,000,000 gross tons a year, against an average rate of about 36,000,000 tons in July. From the middle of July to the end of August production was decreasing rapidly, rates being about 37,000,000 tons at the end of June and 26,000,000 tons at the end of August. With the increases in operations that have since occurred the rate is nearly if not quite up to 30,000,000 tons at the present time. It is somewhat problematical whether increases will continue, but it is the common view that a rate of 37,000,000 tons, the high rate thus far this year, will not be attained again at any time this year.

Traffic conditions as pertaining to the shipment of steel products have rapidly grown worse in the past week. The box car shortages, more or less noticeable for several weeks, have become greater while at some plants there are now shortages of open top cars. More serious, perhaps, than car shortages are the numerous embargoes that are being placed against shipments to various points. No doubt the settlement of the railroad shopmen's strike will immediately make passenger trains more punctual, but improvement in freight movement is likely to be very slow and for a time conditions may grow worse. Many locomotives must be repaired, car shortage representing simply slow movement of the existing cars, due to insufficiency of motive power. Bad order freight cars are reported at 13.9 per cent for June, 1922, against 14.4 per cent for June, 1921, and 7.1 per cent for June, 1920.

Demand for finished steel products is almost entirely for early deliveries, say prior to December. Some buyers would like to contract for the entire fourth quarter, but sellers having tonnage to spare for the quarter are indisposed to make contracts, preferring to sell tonnages outright. Premiums for early delivery, over prices quoted for late delivery, have increased only in the case of wire products, but the late delivery prices are less of a market basis than formerly, on account of buyers taking little interest in them. Bars are quotable at 1.90c to 2.25c, shapes at 2.00c to 2.25c and plates at 2.00c to 2.50c. Sales of plates at 2.50c are less common than three weeks are

All the independent wire mills have now advanced their prices \$3 a ton, and those of the mills that can make shipment in two or three weeks readily sell all they wish to sell, at their new prices. The market range thus becomes 2.35c to 2.50c on plain wire and \$2.60 to \$2.75 on nails.

No independent sheet mill is now left quoting the 3.35c sheet basis of the Steel Corporation, independent prices ranging from 3.50c to 3.75c. Some of those at 3.50c can make shipment in four or five weeks and sales at 3.75c for still earlier delivery, involve small tonnages only.

Connellsville coke stands at \$11 to \$11.50 for furnace and \$12.50 to \$13 for foundry. Offerings of furnace coke are small, hardly sufficient to encourage any furnace to try to accumulate enough to justify blowing in a single stack. Merchant production of pig iron is very light and shows no

definite promise of increasing. Prices display no advancing tendency now and it appears that the majority of consumers cannot afford to pay prices quoted, about \$34 for Bessemer, \$30 for basic and \$35.50 for foundry, valley basis, the market being altogether stagnant.

Pig Iron Continues Advance at Birmingham—Production Maintained Coal Mining Hampered Only by Lack of Cars

Birmingham, Ala., September 18—[Special.]—Pig iron sales in the Birmingham district recently have been on a spot basis, the higher price obtaining being asked and sales, numerous though in small lots, are at top quotations. While the market base is given at \$25 per ton, No. 2 foundry, sales are on a \$27.50 and \$28 per ton level, with even higher prices being asked. Transportation facilities are becoming easier and the prospects are that by the end of the month a large proportion of the piling up of iron can be stopped and some start made on deliveries which have been seriously handicapped during the past four to six weeks.

Production of pig iron has been kept at steady speed, and improved transportation will mean additional output at blast furnaces. The better portion of the probable make in this section for the last quarter of the year has been disposed of. Some of the furnace interests here have been taking chances with iron on hand to sell into the open spot market, the railroads giving special permits in the handling of some of this product.

Embargoes have been removed by railroads on pig iron into the Chicago and St. Louis territories to a great extent and movements in that direction are strong, compared to what they have been, though not near what is desired by producers of iron and the purchasing element. End of the rail strike with some of the railroads at least brings encouragement to the iron and steel industry of the South and many predictions are made as to the activity.

At present the production is at a greater pace than 208,000 tons of pig iron monthly. The next incident out of the ordinary scheduled for the pig iron market here is the blowing in of the rebuilt No. 1 blast furnace of the Tennessee Coal, Iron & Railroad Company, which is expected to produce not less than 600 tons of iron daily when the alignments are all complete and the iron-maker has gotten down to real work.

Steel products are taking on an advance in prices, rails to go up \$3 per ton, wire and wire products also going up besides other shapes, including angle bars.

The iron on yards in Alabama, piled up by reason or the lagging transportation facilities, amounts to less than 100,000 tons as yet and will hardly go above that mark by the end of the month. This is considered but a small amount, in the face of the strong market, and as quickly as the railroads can give service there will be an immediate reduction thereof, purchasers asking for delivery at the earliest possible moment.

The fact that the intra-district transportation facilities were kept up to a good condition, (several of the iron and steel corporations having their own lines to coal and ore mines and between their various works), is responsible for the success that marked operations in the Birmingham district during the coal and rail troubles that beset the entire country. All furnaces in shape were placed in commission in this section and the production of plg iron and steel has been kept at a steady mark.

The Central of Georgia railroad has placed with the Virginia Bridge & Iron Company, Birmingham plant, order for 100 steel flat cars and repairing of 1000 box cars, rebuilding, as it were, 500 composite freight cars and 500 steel hopper

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cars. The Seaboard Air Line Railroad Company, sometime ago gave the Chickasaw Shipbuilding & Car Company, subsidiary of the Tennessee Coal, Iron & Railroad Company, an order for rebuilding of 1000 cars and building of a like number of new cars. This contract is being worked on steadily, the Chickasaw plant at Fairfield turning out upwards 25 new and rebuilt cars daily. The Virginia Bridge & Iron Company several months ago took over through the bankruptcy court the plant of the Birmingham Steel Corporation, a steel fabrication plant erected during the war. The industry has been remodelled at an expenditure of more than \$200,000 and is doing structural work as well as car building and repairing.

Contracts all let, work has been started on the first unit of the new plant of the McWane Cast Iron Pipe Company at North Birmingham, small sized pipe to be manufactured. It is intended rushing the work so that operations can be undertaken by March or April of the coming year. The first unit will have a capacity of about 8000 feet of pipe daily and employment will be given to about 150 men. Other development work in the Birmingham district, including the plants of the Phoenix Portland Cement Company and Lehigh Portland Cement Company, the 10 inch concrete bar mill at the Southern Steel & Rolling Mill Company mills, the 10 and 12 inch merchant bar mill of the U.S. Steel Corporation at Fairfield, and the plant of the Nashville Bridge Company at Bessemer, will be pushed as the transportation facilities improve and construction material and machinery can be brought

Coal production in Alabama is hampered only by inability of railroads to furnish cars to handle the product and locomotive power with which to move it. Production is around 380,000 tons a week. Every ton that can be produced is in demand. Mine workers are now feeling the effects of the 20 per cent increase in wages.

Scrap iron and steel is in better demand and quotations will take on aditional strength before the end of the month. Dealers have plenty of stock with which to meet demands.

Pig iron and iron and steel scrap quotations follow:

PIG IRON.

No. 2 foundry. 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$25.00 to \$28.60; No. 1 foundry, 2.25 to 2.75 per cent silicon. \$25.50 to \$28.50; iron of 2.75 to 3.25 per cent silicon. \$26.00 to \$29.00; iron of 3.25 to 3.75 per cent silicon, \$26.50 to \$29.00; iron of 3.75 per cent silicon, \$26.50 to \$29.50; iron of 3.75 to 4.25 per cent silicon, \$27.00 to \$30.00; charcoal iron, f. o. b. furnaces, \$34.00 to \$35.00.

OLD MATERIAL

OHD MATERIAL.				
Old steel axles		\$16.50		
Old iron axles	15.50 to			
Old steel rails	15.50 to			
Heavy melting steel	13.00 to	15.00		
No. 1 R. R. wrought	15,00 to	15.50		
No. 1 cast		16.50		
Stove plate	15.50 to	16.50		
Old car wheels	14.50 to	15.50		
Old tramcar wheels	16.00 to	16.50		
Machine shop turnings	7.00 to	8.00		
Cast iron borings		11.00		
Cast iron borings (Chem.)		16.00		

Steel Corporation Advances Rails to \$43.00 Ton.

The United States Steel Corporation has advised its subsidiary companies that until September 30, the price of standard rails will continue to be \$40.00 per gross ton base, f. o. b. mills, for deliveries to be made in about equal monthly instalments prior to June 30, 1923. Commencing October 1, the price will be increased to \$43.00 per gross ton base, f. o. b. mills, for the same deliveries.

New Records for Petroleum.

The output of crude petroleum in July totaled 46,593,000 barrels, approximately 1,000,000 barrels more than in June, and exceeded only by the record made in March, 1922. Stocks of crude increased more than 5,700,000 barrels, and at 261,478,-000 barrels established another new record for the industry. Consumption also exceeded all past records, with a total of 51,387,000 barrels, an increase of 6.6 per cent over June.

RAILROADS

Railroad Strike Formally Ended, After Significant Developments.

The prominent feature of the railroad situation during the past week was the conclusion of an understanding with the strike leaders for separate agreements with individual railroads instead of with the railroads as a whole, the union men having previously contended that any settlement must be upon a nation-wide basis. In consequence of this understanding the strike difficulties began to be immediately relieved upon the Baltimore & Ohio Railroad, the Southern Railway, the Seaboard Air Line, the New York Central Railroad, the Virginian Railway, the Chesapeake & Ohio Railway, and a number of other large and smaller lines amounting to about one-fourth of the Class 1 roads in the country. Other lines have since been coming in under this arrange ment and it is probable that practically all of them will accept this method of restoring peace.

S. Davies Warfield, of Baltimore, president of the Seaboard Air Line, was the railroad diplomat who brought about the understanding with the union men following the refusal of the union leaders to accept the many concessions offered by the group of 52 railroads led by Daniel Willard, president of the Baltimore & Ohio system, which declined to restore full seniority to the strikers as demanded by the union officers. B. M. Jewell, representing the strikers, met Mr. Warfield in Baltimore a fortnight ago and reached a tentative understanding to compose the differences existing. Subsequently A. H. Smith, president of the New York Central system, also met with these two in Baltimore, and Mr. Willard, who was out on the Baltimore & Ohio Railroad, was also communicated with, and Mr. Warfield says: "We found Mr. Jewell and his associates desirous of a fair and reasonable settlement of the existing differences."

The understanding reached is that all strikers are to return to work in positions of the class they held on June 30 and at the same points, as many as possible being put to work at present rates of pay and all to be put to work or under pay not less than 30 days after the signing of the agreement, only such men being excepted as have been proved guilty of violence which in the opinion of a commission to be created shall be cause for refusing them work. This commission is to consist of six men named by the chief officers of the employe organizations and six men representing the railroads, the commission to be created within fifteen days. It will decide cases referred to it on or before May 31, 1923. but not thereafter. The relative standing of the men between themselves is to be restored as of June 30, and they will be called back to work in that order. Disputes as to relative standing or any other controversy may be referred to the commission if not otherwise adjusted.

It is further agreed that neither this settlement nor any decision of the commission shall be used or cited in any other controversy that may hereafter arise and that all lawsuits are to be abandoned by both parties.

Mr. Warfield has for some time been apprehensive that the railroad situation generally might result in a strong move ment for Government ownership, and he now says that if the labor conditions on the lines are not permanently relieved Government operation is likely to result ultimately.

"Regional labor boards," he says, "should be properly and promptly established—a board named by each group of railroads that operate in each of the four rate-making districts into which the Interstate Commerce Commission has divided the country, the men of each group of railroads also to organize boards to confer with the regional railroad Negotiations could be successfully carried @ and disputed questions settled if approached in good faith."

Speaking of the ill effects of the strike Mr. Warfield said

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that the demand for men in the railroad shops has been causing men in various industries to leave their places to obtain the higher wages paid by the railroads and that the increase of steel workers wages recently was made to prevent this drift to railroads that were advertising for men. Car builders were also having labor difficulties for the same reason and at a time when a large number of new cars are under contract.

The executive council of the union shopmen made this statement: "The settlement speaks for itself. If the statesmanship shown by S. Davies Warfield, president of the Seaboard Air Line, had prevailed at the outset, differences would have been composed in a week."

During several days immediately before the announcement of the settlement there were some significant developments in the strike situation. The Baltimore & Ohio Railroad, for instance, reported that 807 of the strikers at its Mount Clare shops in Baltimore had returned to work; that on September 11 alone 24 returned, making the payroll number 2428, of whom 2192 were actually at work, which is about normal. On the system as a whole the shop forces were 78 per cent normal. The Chicago & Alton Railroad shops at Bloomington and Slater, Ill., reported over 1000 men on the payroll, 76 men returning to work in one day. The Louisville & Nashville Railroad reported a working force 80 per cent of normal, with 9447 men working in all of its shops, and over 125 men were given employment in one day. The Atlantic Coast Line reported shop forces 85 per cent of normal all over the system. Before this, news came from Chicago that the strike was broken and the strikers were going back to work rapidly, a majority feeling that the union had blundered by calling them out.

Railroad Traffic Heavy in Spite of Strike.

Dallas, Tex., Sept. 15—[Special.]—In a statement issued from the general offices of the Missouri, Kansas & Texas Railway here it is declared that conditions on its lines are better in many respects than they were before the strike. The statement says:

"The Missouri, Kansas & Texas lines moved 137,217 loaded cars in August, or approximately 5000 more than were moved in any previous month this year. This loaded movement in August exceeded the July movement by nearly 19,000 cars and the average daily loaded movement was 4428 in August against 3836 in July. The average daily movement in August was also the largest for the year.

"Local car loading on the Missouri, Kansas & Texas in August was also heavier than in any previous month this year, despite the effect of the coal strike on local loading and the fact that, due to market conditions, there was less demand at country stations for cars for grain loading, local grain loading being approximately 1000 cars less than in August of last year. The lines also received more loaded cars from connections in August than in any previous month this year except June.

"Despite the increase in traffic, the accumulation of loads awaiting movement was also materially reduced during the month and the Missouri, Kansas & Texas entered September with conditions much better than they were at the beginning of August. The daily movement of loaded cars the last week in August was practically equal to that for the same week last year. The bad order car percentage for the Missouri, Kansas & Texas lines as a whole August 31 was 7.2 per cent. or exactly the same as it was at the end of May and slightly under the figures at the end of June.

"Missouri, Kansas & Texas shop forces have now been recruited to 61 per cent of normal, and this organization is turning out practically the same amount of work performed prior to July 1."

BIG ORDERS FOR RAILROAD EQUIPMENT. \$35,000,000 the Total for Locomotives on the Books of One Builder Alone.

Baltimore & Ohio Railroad has ordered 50 mikado type locomotives from the Baldwin locomotive works to cost approximately \$3,000,000. These engines are of a heavy type used in freight service. This makes 100 locomotives ordered this summer by the Baltimore & Ohio Railroad, contracts having been let previously for 35 mikado type and 15 Pacific type engines.

Western Maryland Railroad has ordered 10 consolidation type locomotives from the Baldwin works.

St. Louis & San Francisco Railroad has ordered 35 large mikado type locomotives, 15 mountain type passenger locomotives and 1000 coal hopper cars of 50 tons capacity and steel construction. These orders are valued at approximately \$8,000,000. The company also contemplates ordering 1500 steel gondola type coal cars of 55 tons capacity, 1500 steel underframe automobile cars and 300 steel underframe stock cars. Delivery of the engines is to begin in November and the rest of the equipment will begin to follow shortly.

Nashville, Chattanooga & St. Louis Railway has authorized the purchase of \$2,297,000 worth of new equipment, including 5 freight and 3 passenger engines, 15 passenger cars and 1000 freight cars.

Illinois Central Railroad has asked authority of the Interstate Commerce Commission to issue \$6,645,000 of equipment certificates to cover its purchase of 65 locomotives, and 3000 gondola cars previously reported.

Locomotive orders recently received by the Baldwin works, Philadelphia, have brought the unfilled orders on its books, it is stated, up to more than \$35,000,000.

Louisville & Nashville Railroad has ordered 12 more mikado type engines from the American Locomotive Co.

Norfolk & Western Railway has ordered 4 double-unit electric locomotives from the American Locomotive Co.

Texas & Pacific Railway has ordered 150 tank cars of 10,000 gallons capacity from the American Car & Foundry Co.

Tennessee Central Railroad is reported in the market for 6 passenger cars and 3 combination mail and baggage cars.

Wheeling Steel Corporation, Wheeling, W. Va. has ordered a six wheeled tank locomotive from the American Locomotive Co.

Large Increase in General Freight.

The railroads of Class 1, according to a statement from the Association of Railway Executives, had during the first seven months of this year, a total net operating income of \$418,271,000 or \$203,558,000 more than for the corresponding period of last year, this indicating an annual return of 4.36 per cent on their tentative valuation, an increase of 2.12 per cent. Operating revenues were \$3,054,531,000, a decrease of 2.6 per cent and operating expenses were \$2,419,602,000 or a decrease of 11.2 per cent.

Despite the coal and the railroad strikes, loading of revenue freight during July of this year increased a little more than 10 per cent as compared with July of last year, although the loadings of coal showed a decline of about 48 per cent. Loadings of all revenue freight excepting coal increased nearly 24 per cent.

There are now 197 railroads reporting in Class 1, there having been a decrease of four as a result of consolidations.

Building Association for Railroad Men.

The Railroad Building & Loan Association, with its home office at Dallas, Tex., has been organized by a number of well known railroad executives and other business men in that state to put conveniently before railroad employes methods by which they can purchase their own homes. This association, it is stated, is of the standard type; all loans are

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made upon homes in progressive and substantial cities of Texas, and it is remarked that monthly payments to repay loans are not more than the average rent. The officers of the association are Lynn P. Talley, Prest.; John F. Lehane and O. N. Kelly, Vice Prest.; J. C. Gilbert, Secy.-Treas.; and Holland, Bartlett & Thornton, General Attorneys.

Florida East Coast Railway to Build Important Extension.

The Florida East Coast Railway Co. has asked the Interstate Commerce Commission for authority to build an extension from Okeechobee to Miami, Fla., about 125 miles.

Construction of this line, which the company has had in contemplation for some time, would result in increased development of the Everglades region of Florida and, it is expected, at a rapid rate. The drainage of the Everglades is making available many thousands of acres of rich agricultural lands and these tracts, it is claimed, would fast be settled and cultivated if the proposed line is constructed. Preliminary surveys have been made.

Okeechobee, now the southern terminus of the Kissimmee Valley division of the Florida East Coast Railway, is at the northern end of Lake Okeechobee and the projected extension would proceed from there to Miami, going eastward of the lake, and it would probably have a branch to West Palm Beach.

This new line would complete a second main route for the company all the way from New Smyrna, Fla., where the Kissimmee Valley division begins, to Miami, which, via the existing line is 241 miles south of New Smyrna.

Increasing Freight Movement-Car Conditions.

Loadings of revenue freight on the railroads during the week ended September 2 totaled 931,589 cars, or 40,760 cars more than were loaded during the next previous week, according to a statement from the American Railway Association. This aggregate exceeded the total for any other week for the last eleven months and, as compared with the corresponding week of last year, it showed an increase of 100,310 cars. Loading of coal cars totaled 149,487 cars or 38,457 cars more than during the next previous week and only 5100 cars less than the total for the corresponding week of last year.

It is also stated that on August 31 there were 70,455 surplus freight cars or 50,506 less than on August 23, these being cars in good repair but not employed. Surplus coal cars totaled 54,566, a reduction during the week of 41,839.

The Association of Railway Executives also reports that during the first seven months of this year the railroads had installed or had ordered a total of 95,199 freight cars, this being 25,763 more than were installed or ordered during all of last year. The total includes more than 41,400 coal cars. These figures, however, do not include refrigerator cars bought by private companies.

Safety Warnings Show Fine Results.

John T. Broderick, chairman of the safety section of the American Railway Association and also superintendent of the safety department of the Baltimore & Ohio Railroad Co., reports that as a result of the safety campaign for motorists and others there were on the Baltimore & Ohio lines during June, July and August of this pear 22 per cent less accidents than there were during the same period of 1921, and furthermore that the fatalities to persons in automobiles and others at crossings were cut 41 per cent. Besides, there were 9 per cent less persons injured. In view of the large increase in the number of automobiles in use this year as compared with last year this reduction in the number of machines struck is impressive. It is hoped to have another good record in September. This safety campaign has been and is being

promoted by the agents and officials of the entire Baltimore & Ohio system, motion pictures, stereopticon views, and printed matter being employed to impress upon the public the need for caution at crossings.

Southern Automobile Manufacturer Sells Year's Output.

Upon exhibiting the new Anderson light aluminum six at the dealers' convention, the Anderson Motor Company, Rock Hill, S. C., immediately contracted with dealers for practically the entire output of the factory during the coming year. In ten minutes 4225 cars of this model, valued at \$5,500,000, had been signed for by dealers to be delivered within the year.

The Anderson light six has an aluminum covered body and is a custom creation of Anderson coach builders, hand made throughout, from the frame work of selected ash to the 22 painting operations. That a car so built can be offered at \$1195 is said to be due to the unique coach building facilities which the company possesses.

The addition of the light aluminum six to the regular Anderson coachbuilt line now gives the dealer representing the Anderson a foothold in a field of comprehensive scope, with cars to meet all tastes and pocketbooks, ranging in price from \$1195 to \$2550.

Birmingham Manufacturing Plants at Capacity,

Birmingham, Ala., Sept. 16—[Special.]—With industrial conditions improving in the East following the settlement of the mine strike, Birmingham plants are maintaining maximum production. The Chickasaw Shipbuilding and Car Company's plant at Fairfield is now operating at 100 per cent capacity, and is turning out daily 25 new cars as well as a large amount of repair work. The Nashville Bridge Company this week began construction of its bridge and structural plant at Bessemer. The Tennessee Company still continues at 100 per cent production; in August, it mined 360,000 tons of coal—the best record in five years. Wire drawing mills have orders on hand necessitating full operation. Shipments to the Pacific Coast are steady, and the demand for cotton ties is becoming active. Generally, shipments are as heavy as the car supply will permit.

The Warrior River barge service has been literally swamped with business, and additional traffic is in sight. Cotton is being ginned in larger quantities than last year, and appears to be readily marketed.

Contracts Let for 40 Miles of Arkansas Highways, to Cost \$1,750,000.

Little Rock, Ark., Sept. 18—[Special.]—Commissioners of Road Improvement, District No. 10, of Pulaski County, last week awarded contracts for the construction of 40 miles of road at an approximate cost of \$1,750,000.

Two contracting companies, the Standard Paving Company and the Johnson Team & Dray Company were the successful bidders. The larger contracts were awarded to the first named company, and include the construction of a new road from Eighteenth Street to Levy; all of the Palarm Section. Arbor Avenue, and Confederate Boulevard to the city limits and all of the Pine Bluff Road to the connection with the Dollarway Road at Farrell. The other firm will construct the Baucum Road, more than 32 miles of it to be built outside of Little Rock. They are to be asphalt surface highways on correte base, five to six inches thick.

C. R. Donathan, Miami, Fla., has been awarded contract for a hotel for R. E. Peterson, 74 Broadway, New York to be erected at Miami at a cost of about \$178,000. It will be 5 by 180 feet, four stories high, and contain 106 rooms. Henry La Poine, 152 E. Flagler St., Miami, is the architect. The hotel will be of reinforced concrete and structural steel frame.

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LUMBER AND BUILDING MATERIALS

Increase in Cement Production.

Production of Portland cement according to the United States Geological Survey totaled 11,664,000 barrels in August as compared with 10,244,000 produced in the same month last year. Shipments totaled 14,361,000 barrels last month; in August 1921 the total was 12,340,000 barrels. At the end of last month the stocks on hand amounted to 5,737,000 barrels, as contrasted with 8,280,000 barrels representing stocks at the end of August, 1921.

Both shipments and production show big increases over the corresponding period last year.

"Service Room" Exhibit.

Memphis, Tenn., Sept. 16-[Special.]-Among the exhibits at the Tri-States Fair to be held here September 23 to 30 will be a "Service Room" of the Southern Pine Association. The exhibit shows photographs of homes built from association plans. It includes panels of different stains and finishes of Southern pine interior trim as well as samples of flooring, ceiling, siding and lath. A miniature model home is an added

Recently the exhibit was a feature of the Kentucky State Fair held in Louisville.

North Carolina Pine Production Near Normal.

Norfolk, Va., Sept., 16-[Special.]-Orders received by 48 mills of the North Carolina Pine Association for the week ended Sept. 9 totaled 10,400,910 feet, giving an average order per mill of 216,683 feet. Shipments from these mills aggregated 10,230,323 feet for an average of 213,132 feet per mill. The production amounted to 10,372,339 feet as compared with the normal production of 11,136,000 feet, thus the actual production was only 6 per cent below normal.

Orders were 11/2 per cent above shipments and shipments were about 1 per cent below production.

Florida Pine Manufacturers to Meet.

New Orleans, La., Sept. 16-[Special.]-A meeting of Southern pine manufacturers in the Florida territory will be held at the Mason Hotel, Jacksonville, on September 26.

Information will be presented as to the status of the standardization movement by Secretary of Commerce Hoover, as well as the progress so far made in the perfection of a machine to grade-mark the product of the manufacturers subscribing to the Southern Pine Association.

Present economic conditions will likewise be discussed, including the effect of the rail strike, with the consequent scarcity of equipment, on lumber shipments.

Car Shortage Disturbing Hardwood Industry.

Memphis, Tenn., Sept. 15-[Special.]-From all producing points come reports this week of the lack of cars for shipment of hardwood. Mills that ordinarily require 10 or more cars daily reported one or two cars spotted. Hundreds of cars shipped from the South are tied up in northern and eastern terminals. Many firms are declining to book new business as they have all they can take care of until conditions improve. The summer building program has reached the point where hardwoods are needed to complete these projects, and any interruption to the city flow of hardwood will result in delay in building. Hardwood flooring manufacturers are anxious to meet their needs for common oak lumber, and door and panel manufacturers likewise are scouring the markets. Furniture manufacturers are feeling the effects of the big building program, and orders have been coming in steadily. There is no indication that automobile manufacturers will curtail their consumption of hardwoods.

Hardwood Manufacturers Arrange Local Meetings.

The Hardwood Manufacturers Institute of Chicago, Ill. has arranged for holding a series of meetings in different sections where representatives of nearby mills may conveniently gather for a full and broad discussion of all matters pertaining to the proper manufacture, care and inspection of hardwood lumber from the tree to the car.

The first meeting will be held September 22 at Alexandria, La. After the general discussion practical demonstrations will be made in the yard of the Fred Brenner Lumber Company. The meetings will be conducted by J. M. Pritchard of the Inspection Department. The dates of other meetings will be announced later.

Shipments and Orders Again Drop.

New Orleans, La., Sept. 15-[Special.]-Orders received by 128 mills of the Southern Pine Association dropped sharply last week, totaling but 2487 cars containing 51,267,018 feet, giving an average per mill of but 400,524 feet. Shipments likewise decreased, amounting to 2833 cars of 58,399,462 feet, the average being 456,246 feet. The production reported was 73,863,596 feet, giving an average per mill of 577,059 ft.

Shipments during the week were 20.94 per cent below production. Orders were 30.59 per cent below production, and 12.21 below shipments. The decrease in orders on hand during the week was 2.03 per cent.

The summary report for the week was as follows:

Orders on hand beginning of week Orders received during week	Cars. 17,055 2,487	Feet. 351,571,770 51,267,018
Total Shipments during week	19,542 2,833	402,838,788 58,399,462
Orders on hand end of week	16.709	344,439,326

Contract Let for Steel Work on Building for United States Chamber of Commerce,

According to L. S. Gillette, of Minneapolis, Minn., Chairman of Building Committee of the Chamber of Commerce of the United States, the contract for the steel work on the new structure to be erected in Washington has been awarded to the American Bridge Co. Plans are in the hands of bidders for heating and ventilating, plumbing, electrical work and elevators, and the contracts will shortly be awarded. Contractors will submit bids on September 29 for enclosure of the

Comprehensive Report on Road Types Suitable for Galveston-Houston Highway.

Galveston, Tex., Sept. 15-[Special.]-A comprehensive report has been submitted by County Engineer, C. C. Washington, to the road committee of the Young Men's Progressive League concerning comparative costs of construction and maintenance of three types of roads which might be available for the Galveston-Houston Highway. Suggestions were also offered for a new bridge over Clear Creek, for better road surface on the Texas City cut-off road, and for lighting the various short curves in the vicinity, asphaltic, concrete, and brick on concrete roads, were discussed on a basis of building 21 miles to the Harris County line and maintenance over a period of 20 years as follows: The asphalt cost is \$278,000. maintenance \$872,000, estimated repair \$500,000, totaling \$1,-200,000; concrete cost \$1,278,400, maintenance \$218,000, totaling \$1,496,400; and brick on concrete cost \$1,518,000, maintenance \$130,800, totaling \$1,649,000.

The committee which consists of P. J. Bellew, Chairman, Gus Amundsen, Jr., Louis C. Elbert, A. F. Levy, James J. Boddeker, and M. C. St. John will study thoroughly the report and make recommendations.

TEXTILE

Contract Let for 100 Dwelling Houses—Mills to Enlarge Weaving Department at Cost of \$700,000.

Greenville, S. C., Sept. 16—[Special.]—The Minter Homes Company of this city has been awarded contract for the erection of 100 houses of three and four rooms each for the Judson Mills. Coincident with this award plans are announced for the enlargement of the weaving department of the mill by about 60 per cent at a cost of from \$600,000 to \$700,000, the work to begin soon. Contracts for the construction of the mill have not yet been awarded. The weaving room will be extended 170 feet and between 500 and 600 new looms will be installed.

Plans for the building are being drawn by J. E. Sirrine & Co. The increased facilities will give employment to perhaps 200 additional workmen, hence the necessity for the contemplated new houses. It is estimated that the dwellings will cost approximately \$125,000; this is therefore one of the biggest housing contracts let in Greenville in many years. While some new streets will be opened and improved most of this preliminary work is already finished.

Two New Plants for Hosiery Manufacturers.

Burlington, N. C., Sept. 16—[Special.]—Two new hosiery manufacturing companies have recently been organized here. Last week the Victory Hosiery Mills Company was formed with a capital of \$100,000. The new plant will be located on Logan Street. The machinery is now being received and installed, and operations will be under way in the near future. The officers of this company are as follows: R. H. Whitehead, President; R. A. Coble, Vice-President; L. C. Crismon, Secretary and Treasurer.

The other new mill is the Burlington Knitting Mills, Inc., which also has \$100,000 capital. Offices and plant will be located in the Whitehead Building, and construction work will begin in the near future. The officers are as follows: R. H. Whitehead, President; E. A. Walker, Vice-President, and C. A. Walker, Secretary and Treasurer.

Gingham Mill May Be Established.

Brownsville, Tex., September 11—[Special.]—It is reported here that the Planters and Merchants Mill of New Braunfels, Tex., is interested in locating a gingham mill near this place. The company, which is now erecting the first of a series of ten mills at New Braunfels, will locate its plants throughout the state where the advantages of water power and a good grade of cotton are obtainable as well as low freight rates, etc.

The nearness to Mexico as a market for gingham is one argument in favor of establishing mills here, for Mexico offers a great market for staples of this class.

Textile Mill Notes.

The Josephine Knitting Mills, Cherryville, N. C. are assembling material preparatory to erecting a new mill building on Cedar street.

The Browning Hosiery Mills, East Main St. Chattanooga, Tenn, contemplate the installation of new machines and equipment.

At a recent meeting of the Iceman Knitting Mill, Inc., the Icemorlee Cotton Mills Co., and the Everett Cotton Mills, Inc. it was agreed to consolidate the three mills with a capital of \$1,500,000, with Charles Iceman as general manager. The name of the new corporation has not yet been announced nor have the officers been elected.

The Martel Mills, Columbia, S. C. have plans for additions to buildings, machinery and other equipment at the company's

plant there. Work is to begin in the near future. It is also intended to make improvements to other mills located at Batesburg, Lexington and Spartanburg, S. C; Egan, Ga. and Asheville, N. C. Funds for this work will be obtained from the sale of \$2,000,000 in bonds.

To Erect Plant at Shelby, N. C.

As announced in these columns last week the Dover Mill Co. of Shelby, N. C. has been organized with \$400,000 capital and will build a plant.

J. E. Sirrine & Company of Greenville, S. C., have been engaged to prepare plans for the plant to be erected. Equipment will consist of approximately 10,000 spindles and 250 looms, and production initially will be on print cloth fabrics with the probability that later stripe goods will be made. J. R. Dover, Sr., treasurer of the Catherine Mill Company, will be in charge of the new mills.

Thirty-Five Houses Now Building.

Gaffney, S. C., Sept. 16—[Special.]—Weaver & McMillan, local contractors are erecting 35 houses to be used by the employees of the Limestone Mill and the Gaffney Mfg. Co. It is estimated that the work will cost approximately \$65,000; it is to be completed by November 15. The houses are of three and four rooms each; they will be furly equipped with water, light and sewerage accommodations. Twenty of the dwellings will be for the Gaffney Mill employees and the remainder for the Limestone Mill.

\$350,000 Mill Plant Begins Operations.

Taylorsville, N. C., Sept. 15—[Special.]—The Watts Spinning Company, which has for its size probably the most modern mill of its kind in the South, began operations here this week. The mill has 6000 spindles and 3000 twister spindles which will be employed in the manufacture of comb yarns. A. L. Watts of Stony Point is in charge of the new enterprise. The mill will produce the electric power necessary for its operation. It is estimated that the cost of the new plant was about \$350,000.

Estimate 300,000 Bales Texas Cotton to Orient.

Galveston, Tex., Sept., 18—[Special.]—It is estimated that from September 1 to December 1, possibly 300,000 bales of Texas cotton will be shipped from Galveston to Japan and China. The unusually low freight rates to ports in those countries is one reason for the heavy shipments; it is said also that the cotton stocks of the Far East are running low, due to lack of purchases on anything like a normal basis in the past two years.

Water Power Saves Carolina Mills.

Charlotte, N. C., Sept. 9—[Special.]—Because many of the textile mills in the Carolinas are run by electricity provided by water power plants, their operation has been continuous despite shortage of coal due to the strikes. Only a few mills have been compelled to close because of fuel shortage. In the two Carolinas about 343 mills use hydro-electric power exclusively, 295 use steam power only, and 262 use both electric and steam power.

Holdenville, Okla., Wants Factories.

According to S. J. Ryan, Secretary of the Industrial Committee of Holdenville, Okla., the Chamber of Commerce is interested in having the following factories locate there: glass, oil refinery, cotton mill, brick plant, broom factory, flour mill, sheet metal works, sash and door factory, general repair shop, overall and garment plant, canning and packing plants, novelty works, willow ware factory, and a leather tannery.

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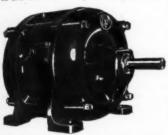
MECHANICAL

Induction Motor of New Design.

A squirrel-cage induction motor for which very broad claims are made by the manufacturers and which embodies new ideas in motor design has been put on the market by the Electric Controller & Manufacturing Co., Cleveland, Ohio.

It is claimed that this motor is better not only mechanically but for efficiency, power factor and torque. No filing or fitting is allowable in its manufacture, but it is so carefully built, it is stated, that the various parts must fit or be rejected.

The stator frame is cast around the stator laminations. thus insuring perfect rigidity and alignment. The shrinkage of the frame after pouring puts the laminations under heavy



pressure and removes any possibility of the motor becoming noisy. The frame is of the skeleton type so that the major portion of the stator laminations are exposed to the air. Fan blades are used on only a few of the 900 revolutions per minute motors. The

COMPLETE MOTOR READY FOR USE. 1200 and 1800 revolutions motors do not have fan blades, as most of the cooling is done by direct contact of the laminations with the air.

The stator windings are all impregnated twice: once, after the coils are wound, and again after the stator is completely assembled and wired. All coils are form-wound, and openslot construction is used. The same care is used in the manufacture of all of these stators that is ordinarily used only when severe moisture or oil paper conditions are to be met.

The bearings are extra large and each is provided with two oil rings, one of which is sufficient to properly lubricate the bearing. The extra ring is used as a factor of safety. The oil wells are larger than ordinarily used so as to give further protection against hot bearings. The rotor has cast end rings and the shaft is made much larger than standard engineering practice demands.

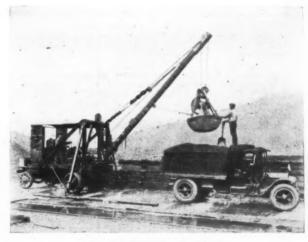
Crane With Motortruck Mounting.

A crane which can be permanently mounted on a motortruck has been brought out by the Byers Machine Co., Ravenna, Ohio, so that the crane can be speedily taken to a job whenever wanted. This new outfit which is styled "Truckrane," may be driven from a garage to a job every morning just like an automobile, or else driven from one job to another with a minimum of time lost in travel. Besides, its increased mobility together with its strength and comparative lightness open up a new field of crane service. Owners whose work has hitherto been too limited for the operation of a large crane can, it is believed, use a machine of this type with profit. It should prove ideal for general contractors, material and supply dealers, for county and municipal organizations engaged on public works, and for industrial plants.

Unmounted, the crane weighs only six tons and is similar to the Byers auto-crane Model 1 in every respect, excepting that it has neither wheels, jackshaft nor differential and drive chains. It has a power drum for raising and lowering the boom which is made of steel. The crane is also furnished with a Hercules four cylinder 4 by 5 inch gasoline engine developing over 30 horsepower, and any half cubic yard bucket weighing not more than 2000 pounds can be used with it.

It is not necessary, the manufacturers say, to use a new

truck for the mounting of the crane. One which has seen 90 per cent of its usefulness and having a motor capable of turning over is all that is needed. Bargains in half worn out motor trucks can be had everywhere, making the first



THE "TRUCKRANE" AT WORK

cost of one of these complete outfits very reasonable. The machine shown in the picture is owned and operated by the Fort Worth Motor Service Co., of Chicago.

The Byers Machine Company has begun the erection of additional buildings and machinery required to manufacture the "Truckrane" on a large production basis without any interference with their standard lines of auto-cranes, revolving cranes and hoists.

Commendations, Kicks and Comments

Fearless Position on Public Questions.

J. A. GAWTHROP, Secretary and Treasurer, Chamber of Commerce, Richmond, Va.—We are pleased to renew our subscription for one year from the date of the current expiration. Your magazine is of substantial value to us in our work and we commend you for the fearless position that you have taken on questions of public interest.

Helpful and Inspiring.

B. B. Jones, Edgefield, S. C.—Enclosed please find check to cover my subscription for another year. Permit me to say that I have never read more straight-to-the-shoulder truths in print than those contained in the RECORD each week. I greatly appreciate this magazine, and I feel that each and every copy is helpful and uplifting

Words Fitly Spoken.

S. S. BUDLONG, Manager, General Engineering & Construction Co.. Rockford, Ill .-- I read with great satisfaction your front page editorials, and your other articles on the big questions of the day, such as law enforcement, labor board policies, government extrava-gance, taxes, and interference in business.. I agree with you most heartily. I am glad you are wise enough and bold enough to back

You have all sound thinking men of the North with you, as well as those of the South. Every citizen should read your paper.

Declares It Has No Equal.

F. P. Toor, Agent, Cohankus Manufacturing Co., Cotton Goods, Paducah, Ky.-It is with pleasure that we renew our subscription. No publication comes to our desk that we value so highly as the MANUFACTURERS RECORD, and as an exponent of pure, unadulterated Americanism, it has no equal. The regret is that we have not more publications of this kind, for with the conditions confronting this country at this time good, clear thinking and clear action are necessary, not only on the part of the individual, but on the part of our state and national governments.

The voice supporting constitutional gvernment in America is necessary, and our hope is that the editor of the MANUFACTURERS RECORD may have years added to his life that has been so useful to America in the past,

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Construction Department

EXPLANATORY.

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news value are published later from telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

DAILY BULLETIN.

The Daily Bulletin of the Mantfactureness Becould be overly business day in order to give earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

Bridges, Culverts and Viaducts.

Ala., Livingston—For full details see Mchy. Wanted—Road and Bridge Construction.

Fla., Jacksonville—Duval County Commrs., Charles A. Clark, Chrmn., plans building wooden bridge on Cedar Springs road; 16-ft, wide draw; will invite bids.

Fla., Jacksonville—Duval County Commrs., will build wooden bridge. For full details details see Mchy. Wanted—Bridge Construction.

Fla., Jacksonville—Duval County will re pair 4 steel bridges as follows:

Over Six Mile Creek, on Lem Turner road.
Over Big Pottsburg Crt., on Atlantic Blyd.
Over Pablo Creek on Atlantic Blyd.

Over Big Fishweir Creek on Orange Park road; bids until Nov. 1; Geo. B. Hills, County Engr.

Fla., Pensacola—Federal Government approved plans to build bridge across Yellow River at por near old Faulk Ferry landing. Address C. H. Overman, County Engr., Pensacola.

Ga., Savannah—Chatham County Commrs. let contracts to following for bridges and fills across Savannah River between Georgia and South Carolina, at Savannah; to A. P. Twiggs & Son, Augusta, Ga. at \$165,522.94, for clearing and earth fills above marsh; Olaf Otto, Savannah, at \$313,667.17 for trestles and pier work; contract for steel swing span to be jet later.

Ky., Frankfort—Franklin County Fiscal Court let contract to Riddle & Quire to reconstruct Bowen's Bridge near Elkhorn Station; to Champion Bridge Co., for bridge on St. John Pike.

Ky., Pineville—For full details see Road and Street Construction.

Kentucky.—State Highway Comsn., Frankfort. For full details see Mchy. Wanted—Bridge Construction.

La., Minden—Louisiana Highway Comsn., Baton Rouge, La., will build steel and concrete bridge. For full details see Mchy. Wanted— Bridge Construction.

Miss., Jackson—Hinds County Board of Supvrs. will receive bids until Oct. 3 to build overpass and underpass at 2 places where Alabama and Vicksburg R. R. crosses Jackson-Clinton Highway; Federal Aid to furnish 50%.

Miss., Macon—Noxubee County Commrs., Jno. A Tyson, Clk, will build 2 wooden bridges. For full details see Mchy. Wanted— Bridge Construction.

Miss., Vicksburg—Warren County, Board of Supvrs. let contract to Newson Brothers & Mills. Goss, Miss., at \$32,835,20 to construct concrete and steel bridge over Big Black River, on Baldwin's Ferry road, between Vicksburg and Raymond; to Hubbard &

Broome, Utica, Miss., at \$13,426.13 for road work, dirt and gravel. (Lately noted.)

Missouri—State Highway Dept., Jefferson City, Mo., plans building following bridges:

St. Charles County, State Project, Route 2, Sections 70, 72 and 73, on state road from Warrenton to St. Charles.

Sta. 604 plus 29, over Peruque Creek, 80-ft. steel truss; concrete floor; two 20-ft. reinforced concrete slab approach spans at each end; 2 reinforced concrete plers; 4 reinforced concrete pile bents.

Sta. 1106 plus 3, over Spencer Creek; 35-ft. reinforced concrete deck girder span; 2 reinforced concrete abutments; 20-ft. roadway.

Sta. 1229 plus 4; 20-ft. reinforced concrete slab span; 2 reinforced concrete abutments; 20-ft. roadway.

Sta. 1334 plus 74, over Cole Creek; 35-ft. reinforced concrete deck girder; 2 reinforced concrete abutments; 20-ft. roadway.

Sta. 1272 plus 40, over Spencer Creek; 50-ft. steel truss span; 20-ft. reinforced concrete slab span, at each end; 2 reinforced concrete plers and pile bents; concrete floor; S. M. Rudder, Div. Engr., Bristol, Bldg., Webster Grove, Mo.

Texas County, State Project, Route 7, Sec. 79, on State road from Houston to Rolla:

Sta. 2163 plus 00; 20-ft. reinforced concrete slab span; 2 mass concrete abutments; 24-ft. roadway; J. H. Long, Div. Engr., Willow Springs, Mo.

Vernon County, State Project, Route 26, on State road from Nevada to Eldorado Springs.

Sta. 421 plus 32; 30-ft. reinforced concrete deck girder span; 2 reinforced concrete abutments; 20-ft. roadway; Ray Dunlap, Div. Engr., Frisco Bidg., Joplin, Mo.

Oregon County, State Project, Route 42, Section 4, on State road from Alton to Ripley County line.

Sta. 1588 plus 40; 30-ft. reinforced concrete deck girder span; 2 reinforced concrete abutments; 20-ft. roadway; J. H. Long, Div. Engr., Willow Springs, Mo.

Cape Girardeau County, State Project, Route 25, Section 20, on State road from Perry County line to Jackson.

Sta. 214 plus 51, over Buckeye Creek; 50ft. steel truss span; concrete floor; 2 reinforced concrete abutments; 20-ft. roadway; Frank B. Newton, Div. Engr., Sikeston. Mo.

Lewis County, State Project, Route 6, Section 60, on State road from Monticelle to Canton.

Sta 35 plus 20, Smith Bridge; 12-ft, reinforced concrete slab; 2 reinforced concrete abutments; 24-ft, roadway; Henry D. Griffith, Div. Engr., Hannibal, Mo.

Missouri-State Highway Dept., Jefferson City. Mo., plans following bridges:

Davis County, on State road from Gallatin southwestward and northeaseward; Sta. 987 plus 00, Sec. A (F 315); 20-ft. reinforced concrete slab span; 18-ft. roadway; 2 reinforced concrete abutments; State Ald Project

No. 20,206; N. R. Sack, Div. Engr., Ballinger Bldg., St. Joseph, Mo.

Hickory County, over Jordan Creek, Sta. 803 plus 60; 40-ft, reinforced concrete thru girder span; 18-ft, roadway; 2 reinforced concrete abutments; Federal Aid Project No. 86-A; H. P. Mobberly, Div. Engr., Woodruft Bldg., Springfield, Mo.

Mo., Buffalo—State Highway Dept., Jefferson City, Mo., will build 2 reinforced concrete bridges. For full details see Mchy. Wanted—Bridge Construction.

Mo., Jefferson City—Cole County Commrs, contemplate constructing bridge over creek at intersection of Hough St. and Grand Ave., in Renn Addition. Address County Engr.

Mo., Kansas City-For full details See Land Developments.

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Mo., Lexington—Lafayette County Comms., will construct bridge over Missouri River; voted \$258,000 bonds. (Lately noted.)

Mo., Richmond—For full details see Road and Street Construction.

N. C., Spruce Pine—Board of Road Commr. of Mitchell County, and County Commrs. of Yancey County will construct 2 steel bridge. For full details see Mchy. Wanted—Bridge Construction.

N. C., Whiteville—Columbus County Commrs. A. W. Baldwin, Clk., plans constructing 3 bridges across Soldiers Swamp, near Whiteville; bids opened.

Okla., Chickasha—Grady County Commra For full details see Mchy. Wanted—Bridge Construction.

S. C., Charleston—Charleston County Sanitary & Drainage Comsn., 39 Broad St., received lowest bids from Charleston Foundation Co., at \$5670, for piling for Dawhoo Bridge across Dawhoo River to Edisto Island.

S. C., York—York County Commrs, let contract to Austin Brothers Bridge Co., Atlanta, Ga., at \$5100 for creosoted trestle bridge over Bullock's Creek on road between Hickory Grove and Sharon.

Tex., San Angelo—Tom Green County let contract to Brown-Abbott Co. Loraine, Tex, at \$75,000, for 500-ft, reinforced concrete bridge, over North Concho River, including 200-ft, reinforced concrete cantilever span, and 300-ft. girder approach; 30-ft. roadway; Gibb Glichrist, Engr.

Tex., Houston-For full details See Miscellaneous Construction.

W. Va., Welch—J. H. Mitchell let contract to Champion Bridge Co., for steel and concrete bridge across Elkhorn in front of Mitchell home on Water St. and ending alongside eastern end of Solins building.

Canning and Packing Plants.

Fla., Bradentown—Florida Grapefrait Canning Co., capital \$50.000, incptd. with E. B. Rood, Prest.; C. E. Street, Secy.

Tex., Harlingen—Abernaruy & Abernaruy will soon let contract for erection of canning plant; cost \$50,000.

Clayworking Plants.

W. Va., Wheeling—Wheeling Mantel & Tile Co., 829 Market St., let contract to Geo. L. Reed to erect addition to plant; 1 story; 68x26 ft.; cost \$11,385; M. F. Glesey, Arek.

Coal Mines and Coke Ovens.

Ky., Elkton—North Todd Coal Co., incptd. by John O. Street, Sr., D. M. Butler and W. G. Davis,

Ky., Nevisdale—Dixle Gem Coal Co., capital \$10,000, incptd. by G. C. Ben and Esther Croles.

Ky., Pikeville—Broad Bottom Coal Co., capital \$42,000, incptd. by J. J. Christie, H. H. Funk and Isabelle Musick.

Ky., Whick—Noble Coal & Lumber Co., capital \$12,000, incptd. by Geo. W. Noble, Martha and Pearl Noble.

Tenn., Chattanooga—Signal Mountain Coal & Mining Co., L. S. Berg, Secy.-Mgr., has plans for developing about 10,000 acres of coal land lying between Suck and Middle creek on Signal Mountain; ultimate daily output of mines 2500 tons; will construct incline, tramways, etc.; cost of improvements \$250,000; also contemplates constructing miners village; contract for 30 bungalows of Montlake development let to Farrar Lumber Co., Dalton, Ga. (Lately noted.)

Tex., Palo Pinto—Industrial Coal Co., capital \$10,000, incptd. by E. J. Elam, J. A. Moore and H. H. Milling.

Va., S. Richmond—Henraco Coal Corp., 11 West 10th St., (lately noted incptd., capital \$25,000) organized with J. Frank Hagan, Prest.; J. E. Norvell, Secy.-Treas.; Thomas H. Jones, Mgr.; developing 560 acres coal land, present daily output 9 tons; installed bollers, pumps, hoisting engine, rails, cars, etc.

W. Va., Clarksburg—Pool Coal & Coke Co., Goff Bldg., capital \$50,000, incptd. by H. E. Davison, C. E. Pool and G. W. Albright.

West Virginia—W. K. Hatfield and J. J. Reynolds, Morgantown, W. Va., acquired 550 acres coal land in Cass Dist.; will develop.

Concrete and Cement Plants.

Md., Security—Security Cement & Lime Co., L. A. Cover, Prest., Equitable Bldg., Baltimore, Md. will increase plants capacity by 50 per

Drainage Systems.

Ark., Wynne—For full details See Mchy. Wanted—Drainage.

Mo., Ravenwood—For full details See Mchy.

Mo., Ravenwood—For full details See Mchy Wanted—Drainage.

S. C., Kingstree—For full details see Mchy. Wanted—Drainage.

Electric Light and Power Plants

Ark., Cotter—Dixle Power Co., of Arkansas, filed application with Federal Power Comsn. for five low-head dams below Cotter on White River. (Lately noted.)

Ark., Hot Springs—Caddo Power & Irrigation Co., Little Rock, H. L. Remmel, Prest.; H. C. Couch, Secy., Pine Bluff, reported to construct 2 power dams on Onachita River near Hot Springs; first dam to be constructed 5 ml. south of city, cost approx. \$3,000,000, second dam. will be located at Blanchard Springs, cost approx. \$8,000,000; also contemplate constructing third dam between Malvern and Hot Springs, to develop over 100,000 primary H. P.; build transmission lines to intersect near Malvern with lines of Arkansas Light & Power Co.; additional development of water power, installation of dam will completely regulate flow of Ouachita River.

Ark., Mountain Home-W. H. McShane of Kansas City, Mo. purchased mill, light plant and gin.

Ark., Mountain Home—Wyatt Wolf reported to install electric light and cold storage plant.

Ark., Russellville—For full details see Water Works.

Fla., Orlando—For full details See Land Developments.

Fla., St. Petersburg—City let contract at \$40,962 to Charles DuBois for construction of electric power house. (Lately noted.)

Ga., Atlanta—Georgia Railway & Power Co, has plans for construction of power line from Lindale through Chickamauga to Chattanooga, Tenn., connecting with lines or Tennessee Power Co.; 30,000 K.W., 110,000 volt operation with transformer stations at Summerville, LaFayette and Chickamauga.

Ga., Columbus — Columbus Electric & Power Co. will construct high tension line to connect with line of Georgia Railway & Power Co., at Newnan, Ga.; will re-insulate line for 110,000 volts; line will extend from Goat Rock to Newnan.

La., Monroe-For full details See Misc. Factories.

Md., Cambridge—Chamber of Commerce interested in establishment of white way on Race, Poplar and High Sts,

Mo., Caruthersville—City contemplates rebuilding burned electric light and ice plant. Address The Mayor.

Mo., Paris—City will install 2 oil engines, generator and complete equipment for water and light plant; will probably vote on \$55,000 bonds. Address the Mayor. (Lately noted.)

N. C., Greensboro—City authorized extension of lighting system on E. Market St. from Davie to Forbes St. and on W. Market St. Address The Mayor.

Address The Mayor.

N. C., Southern Pines—Sandhills Power
Co., John R. McQueen, Prest., will equip

Weymouth Heights addition to Southern Pines with lighting system.

N. C., Wilson:—Chamber of Commerce interested in establishing white way on Nash, Goldsboro, Tarboro and Barnes Sts.

Tenn., Knoxville—North Knoxville Business Men's Club interested in construction of white way.

Tex., Dallas—Dallas Power & Light Co. will expend about \$110,000 in improvement to lighting system; will place all overhead wires underground, install ornamental street lights, etc.

Tex., Houston—City will construct white way on portion of Washington Ave., J. C. McVea, City Engr.

Va., Portsmouth—City will extend white way on High St. from Chestnut St. to Sixth Ave. Address The Mayor,

Va., Roanoke—Liberty Light & Water Co., capital \$100,000, incptd. with M. C. Hughson, Prest.; F. M. Hughson, Secy.

Va., Suffolk-Chamber of Commerce interested in establishing white way.

Flour, Feed and Meal Mills.

Ga., Macon—Bibb County Farm Bureau of Chamber of Commerce, Dr. W. G. Lee, Chrmn, reported interested in establishing feed mill.

La., Welsh—Monroe Davis, Prest.; Dr. E. W. Ritter, Lake Charles, Vice-Prest.; J. E. Lewis, Secy. of company; organized with \$500,000 capital; to clear stream of Southwest Louisiana of water hyacinths and mfre. for stock feed.

Mo., Ozark—Hawlins Bros. will construct flour mill, 3 story; also build warehouse with capacity of 11 car loads of flour and elevator with 20,000 bu. capacity.

Mo., Springfield—E. E. Evans Feed & Seed Co., capital \$10,000, incptd. by E. E. Evans, Everett Beazley, L. O. Beazley.

Tenn., Memphis—Crown Milling Co., lately noted incptd. with \$150,000 capacity, incptd. with Will T. Wray, Prest.; A. E. Markham, V.-P.; R. P. Powell, Mgr.; has mixed feed plant.

Foundry and Machine Plants.

Mo., St. Louis—St. Louis Wire & Iron Co., Theodore R. Piesler, Prest., 926 Chateau Ave. plans erecting 2 story and basement, 50 x 150 ft, addition; bids open.

Gas and Oil Enterprises.

Fla., Bartow—Polk County Oil Co., capital \$100,000, incptd. with E. L. Mack, Prest.; J. Forrest Caldwell, Secy.

La., Alexandria—For full details see Mchy, Wanted—Natural Gas Distribution System.

OPPORTUNITIES FOR NEW BUSINESS

THROUGH THE

DAILY BULLETIN

Manufacturers of Machinery and Equipment, Dealers in Railroad and Contractors' Supplies, as well as Architects, Contractors and Builders, find it very profitable to follow up the advance news furnished through our DAILY BULLETIN EVERY BUSINESS DAY IN THE YEAR. It is an authoritative, prompt source of information concerning every industrial and railroad undertaking of any consequence, and likewise all important building operations and municipal improvements in the whole South. The opportunity of getting in correspondence with firms that are in the market is afforded by a daily perusal of its columns.

MANUFACTURERS RECORD

BALTIMORE, MD.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

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La., Edgerly—Coastal Petroleum Co., of Louisiana, capital \$50,000, incptd. with C. C. Harrell, Prest.; G. W. Hook, Vice-Prest. and Gen. Mgr.; D. Button, Secy.-Treas.

Mo., Columbia — City granted 20-yr. gas franchise to Watts Engineering Co. (Lately noted.)

Mo., Kansas City—Richardson Refining Co., capital \$250,000, incptd. by W. D. Richardson, W. R. Douglas, Phil J. Lehashard.

Okla., Duncan—Loco Pipe Line Co., capital \$100,000, incptd. by N. A. Cottrell, W. A. McKinley, both of Oklahoma City.

Okla., Oklahoma City—Cato Oil & Grease Co., capital \$15,000, incptd. by H. L. Cato, Claude C. Huffman,

Okla., Oklahoma City—George Smith and others purchased the Golthorpe refinery, will install additional equipment.

Okla., Ponca City—Marland Refining Co., will expend \$1,500,000 in improvements to refinery; will increase capacity to 14,000 bbls, with tank farm storage capacity of 1,920,000 bbls; will also construct complete water works system with daily capacity of 2,000,000 gal.

Tex., Athens—Athens Oil Co., capital \$100,-000, incptd. by J. F. Gilmore, W. G. Crumpler, J. M. Hardaway.

Tex., Brazoria—Croesus Oil Co., capitai \$5000, incptd. by Will Martin, Broughton Wilkinson, J. S. Dunlap.

Tex., Houston—Invaders Drilling Co., capital \$20,000, incptd. by J. P. Bell, P. P. Cooper, J. S. Bracewell.

Tex., Hughes Springs—Hughes Springs Oil & Gas Co., capital \$75,000, ineptd. by J. T. Coney, R. M. Keeling, H. L. D. Jenkins.

Tex., Kaufman—Kaufman Oil Co., capital \$100,000, incptd. by J. M. Hardaway, W. G. Crumpler, J. F. Gilmore.

Tex., Laredo—Black Panther Petroleum Co., capital \$15,000, incptd. by B. M. Alexander, G. W. Sprague, W. W. Allen.

Tex., Mirando City—Big Bear Oil Co., capital \$10,000, ineptd. by C. L. McCaslin, E. B. Zachry, H. T. Achlon.

W. Va., Logan—United Fuel & Gas Co. will construct gas pipe line in Middleburg Addition.

Ice and Cold-Storage Plants.

Ark., Mountain Home-For full details see Electric Light and Power Plants,

Fla., West Palm Beach—Anartic Ice Co., J. E. Bender, Prest., let contract to Keystone Constrction Co. to erect plant addition, install 40 ton ice plant and additional cold storage capacity; approx. cost \$85,000; increase 24 hr. output to 160,000 lbs.

Tex., Amarillo—Consumer Ice Co. will erect 5000 ton ice plant, let contract to Panhandle Brick & Tile Co. for 1,000,000 bricks.

Iron and Steel Plants.

Md., Baltimore—Ornamental Iron Works, etc.—Baltimore Steel Co., Gilbert A. Wehr, Prest., Eastern Ave, and Eden St. reported to purchase 20,000 ft. adjoining property to erect plant addition of steel construction; giving about 5000 ft. of additional space; increase capacity; mfrs. structural steel and ornamental iron work.

Land Development.

Fla., Clearwater—West Coast Fruit Co., capital \$75,000, incptd. with B. Kilgore, Prest.; S. W. Watkins, Treas.; R. M. Brumby, Secy.

Fla., Fort Meade—Lake Henry Citrus Groves Assn.. capital \$25,000, incptd. with Reuben S. Childers, Prest.; George E. Childers. Secv. Fla., Jacksonville—Morrison-Howell Co., capital \$50,000, incptd. with C. L. Morrison, Prest.; Annie Faughnan, Secy.-Treas.

Fla., Miami — August Geiger, Archt., will develop 14 acres lying between Prairie Ave. and 28th St. for subdivision.

Fla., Miami Beach—Bay Shore Co. will construct 18-hole golf course north of Lake Surprise.

Fla., Orlando—H. E. Trowbridge and Barton Littman purchased holdings of Bithlo Real Estate Co. at Bithlo and will develop for sub-division, will install electric and power plants, water works, pavements, etc.

Fla., Orlando—Orange County Chamber of Commerce interested in developing 500.000 acres of land for colonization.

Fla., Sparr—Wissahickon Grove, Inc., capital \$100,000, chartered with Kenneth H. Day, Prest.; Henry T. Cadanas, Secy.

Fla., Winter Haven—Winter Haven Avacado Growers, Dr. J. E. Crump, Prest. will develop 100 acres in avacados; expend \$75,000; E. M. Hart, in charge. (Lately noted.)

Ky., Georgetown—Sunshine Groves Co., capital \$100,000, incptd. by R. F. Saxton, Jr., J. H. Switzer, E. R. Jones.

Mo., Kansas City—City contemplates voting in Nov. on \$3,200,000 bonds; \$1,000,000 for improvements of Swope Park; \$500,000 for general sewer construction, \$300,000 for nurses' home and hospital improvements; \$300,000 for fire stations and equipment; \$500,000 for street repair; \$500,000 for bridge and viaduct; \$500,000 for playgrounds and wading pools. Address Mayor Cromwell.

Mo., Kansas City—Cowherd Land Co., capital \$50,000 incptd. by Fletcher Cowherd, J. C. Meredith.

Mo., Kansas City—Pioneer Securities Co., capital \$10,000, incptd. by G. H. Canless, D. L. Kelley, J. J. Rafferty.

Mo., Kansas City—Kelley Realty Co., incptd by D. L. Kelley, J. J. Rafferty, D. D. Moor-

Mo., St. Louis—Julius Haller Realty Co., capital \$5000, incptd, by Maria C. Haller, Julius Haller and A. D. Ruth.

Okla., Pauls Valley — Pauls Valley Land & Development Co., capital \$15,000, incptd. by Hardee Russell, H. G. Butts, W. L. Menefee.

S. C., Greenwood—For full details See Mchy. Wanted—Landscape Architects.

Tex., Cleburne—Land-Loan Investment Co., capital \$100,000, incptd. by R. B. Caldwell, H. L. Wallace, J. E. Dunlap.

Tex., Dallas—Collin County Realty Co., capital \$100,000, incptd. by S. W. Sidley, W. F. Wallace, M. McKenzie.

Tex., League City—E. O. Kruger, reported interested in development of 500 acres in figs, Tenn., Chattanooga—For full details See Coal Mines & Coke Ovens.

Va., Norton—Kiwanis Club interested in establishing park.

Va., Roanoke—Frances Farm Agency, capital \$20,000, incptd. with Henry L. Francis, Prest.; Agnes M. Francis, Secy., both of Salem Va.

Va., Roanoke — Andrews Tate-Yost, capital \$5000, incptd. with Wm. K. Andrews, Prest.; Arthur L. Tate, Secy.

Va., Roanoke—Commercial Land Co., capital \$20,000, incptd. with S. W. Harrell, Prest.; J. W. Herring, Secy.

Va., Salem—Industrial Development Co., capital \$350,000, incptd. with R. W. Kime, Prest.; H. I. Johnson, Secy.

W. Va., Parkersburg—J. B. Orchard Co., capital \$10.000, incptd. by A. Salvatori, W. L. Bradshaw, Walter Hilton,

Lumber Manufacturing.

Ala., Tuscaloosa—Jones Lumber Co., reported to erect and equip planing mill. Chamber of Commerce interested.

Ark., Thornton-Stout Lumber Co., will rebuild mills; burned at loss of \$200,000.

Ga., Sycamore—Sycamore Lumber Co., will develop 2300 acres timber land, has mill, daily capacity 20,000 ft.

La., Leesville—Powell Lumber Co., Lake Charles, La., acquired Nona Lumber mills, including 50,000 acres land containing about 200,000,000 ft. timber; will develop.

La., Monroe—Crossett Lumber Co., contemplates installing additional mill, approx. cost \$500,000.

Miss., Glancy—C. C. Spence purchased established saw mill, will remodel.

Miss., Poplarville-Williams Yellow Pine Co. reported to rebuild portion of burned plant.

S. C., Ridgeland—Chelsea Lumber Co, Petersburg, Va. organized with G. C. Wright, Prest.; E. A. Robertson, Treas.Mgr.; has saw and planing mills, daily capacity 50,000 ft. (Previously noted incptd., capital \$25, 000.)

Tex., Dallas—Marsalis Lumber Co., 1021 N. Marsalis Ave. (Lately noted ineptd., capital \$20.000) organized with J. L. McNees, Prest.; K. W. Holbert, Secy.; will erect 24x100-ft. and 14x26-ft. buildings for small millwork; construction by owner; install rip saw and cut off saw. (See Machinery Wanted—Saws (Rip and Cut off).

Metal-Working Plants.

Ga., Atlanta—Welding, etc.—Lamar Welding Co., John Lamar, Prest.; acquired established plant; will operate.

Ga., Atlanta—Wheels and Rims—American Wheel & Rim Co., capital \$650,000, incptd. by James W. Cordell, and R. H. Lukenbill.

Md., Baltimore—Metal Caps—Toledo Bottle Cap Co., Toledo, O., reported to establish branch plant for mfre. of milk bottle caps and other capping devices; acquired about 6000 sq. ft. floor space in Candler Bidg.

Mo., St. Louis—Metal Products—Rebstock Co., capital \$12,000, incptd. by A. J. Rebstock, C. A. Kohl and W. M. Wolters.

Tex., Dallas—Electric Signs—Abbott-Stuart Sign Co., 2814 Main St. established plant for mfre. of electric signs.

Tex., Houston—Southwestern Wheel & Rim Co., capital \$12,000, incptd. by H. J. Pickrel, H. L. Freear and Fred Prior.

Mining.

N. C., Woodleaf-Granite-Hardaway Co., Salisbury, N. C., will develop granite quarries; build employees houses.

Miscellaneous Construction.

D. C., Washington-Government contemplates improving water front; surveys to be made by U. S. Engr. Corps.

Fla., W. Palm Beach—City contemplates constructing seawall and other improvements at Phillips Point, Address The Mayor.

Ky., Hickman—Mississippl River Comm., let contract to Winter Roach, Memphis. Tenn., to construct 350,000 yds. levee work within St. Johns levee and drainage district.

La., New Orleans—Levee, etc.—New Orleans Levee Dist. contemplates construcing water course to connect river and lake, as supplementary system of control of the Mississippi river; 6000 ft wide and about 5 mi. long; engines estimated cost of project \$5.000,000; financial aid asked of Federal Government,

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La., New Orleans—Levee—Board of State Engfs., 213 New Orleans Courthouse, awarded contracts for construction of levee work, as follows: Elmwood levee to Lawrence, Nixon & Phillips, Jackson, Miss., for \$10,920; Belair-China Grove, and Row levees, to J. T. Phillips, for \$15,030; Eureka levee, to Don B. Hearing, for \$105,437.50; Live Oak-Reliance levee, to R. T. Clarke, Natchez Miss., for \$109,650; Grenada levee, to Gueynard Bros., Carville, La., for \$17.750; Belmont levee to Lower Coast Construction Co., 130 St. Charles St., for \$12,000.; Vaucluse levee to Nicholson Construction Co, for \$28,784.50. B. T. Clarke at \$109,650, for the Live Oak-Reliance Levee.

Renance Levez. Queynard Bros., Carville, La., at \$17,750 for the Grenada Levee and the Lower Coast Construction Company, 130 St. Charles St., at \$12,000 for the Belmont Levee.

Nicholson Construction Company at \$28,-745.50 for the Vaucluse Levee, to W. M. Wren at \$17,100 for the Gretna bulkead.

Lowest bidders on additional work are: Lawrence Nixon & Phillips, Jackson, Miss., at \$10,920, for the Elmwood Levee; J. T. Phillips, Torris, La., at 14740, for the Belair-China Grove Levee; and \$10,290 for the Row Levee; Don B. Hearing, Baton Rouge, La., \$105,437.50, for the Eureka Levee.

Mo., Kansas City—Wading Pools—For full details See Land Developments.

Tex., Corpus Christi—Port Development—Corpus Christi Port Development Assn., Roy Miller, 1st. V.-P.; contemplate \$1,000,000 bond issue for use in construction of wharfage and terminal facilities; an appropriation or \$1,394,800 asked for dredging channel from deep water at jettles at Aransas Pass to Corpus Christi.

Tex., Fort Worth—Elevator—Priddy-Maer Elevator Co., capital \$10,000, incptd. by W. M. Priddy, Claude Maer and Nellie Straiton.

Tex., Houston—Dredging—U. S. Engineer Dept. let following contracts for dredging in ship channel project: to Atlantic, Gulf & Pacific Co., 13 Park Row, New York at \$688, 754 for Section No. 1: to United Dredging Co., 233 Broadway, New York at \$283,957 for section No. 2. (Lately noted.)

Tex., Houston—Dam, etc.—City opened bids for construction of Sabine St. bridge and dam, first improvements of the permanent fair and exposition grounds along lines of the Kessler plans; Smith, Starkey & Brown lowest bidders at \$159.000; also plans expending \$75,000 on straightening and deepening the bayou and with the dam will make straight course for water sports at fair grounds. (Previously noted.)

Miscellaneous Enterprises.

D. C., Washington—Pictorial Feature Service, capital \$100,000, incptd. by J. P. Freeman, W. B. O'Connell and J. B. Irving.

Fla., Daytona Beach—Daytona Beach Hotel Co., capital \$200,000, incptd. with Charles E. Bostwick, Prest.; Fred S. Rossner, Secy.-Treas.

Fla., Hialeah—Printing, etc.—Hialeah Herald, Inc., A. C. Graw, Mgr., will erect 60x-25-ft. fireproof building; bids open; install job and cylinder presses, cutters, job and advertising type; job printing and weekly newspaper. (Lately noted.)

Ga., Columbus—Mitchell Cleaning & Dyeing

Ga., Columbus—Mitchell Cleaning & Dyeing
 Co., capital \$10,000, incptd. by S. A. Mitchell,
 T. J. Johnson and J. E. Bradford.
 Miss., Jackson — Livestock — Mississippi

Aniss, Jackson — Livestock — Mississippi Farm and Stock Co., incptd. by D. B. Barnard, Jackson; S. R. Whitten, St., Gulfport, Miss,

Mo., Jefferson City-Paris Cleaning & Dyeing Co., incptd. by Jacob and Carrie Skuy, Minnie Schwenkmeyer. Mo., Kansas City-Fire Equipment, etc.-For full details See Land Developments.

Mo., Kansas City—McIndoo Publishing Co., capital \$100,000, incptd. by W. O. McIndoo, W. A. Lewis and W. A. Robinson.

Mo., Kansas City—Fire Alarm System, etc.
—Fire Comsn. opened bids for installation of fire alarm and central alarm station, bidders are: Carnahan Fire Alarm Co., Cleveland, Ohio.; United States Automatic Fire Alarm Co., Kansas City; Monarch Telephone Mfg. Co.; Gamewell Fire Alarm Telegraph Co., Chicago, Ill.; Freeman-Sweet Co., Chicago, Ill.; Alarm Co., New York City.

Mo. Kansas City—National Construction Co., capital \$50,000, incptd. by Chas. Gidinsky, Jane Hichman and H. C. Rings.

Mo., St. Louis—Dieterich Arnold Hardware Co., capital \$10,000, incptd. by Harry Dieterich, Joseph Arnold and F. J. Koerper.

N. C., Fayetteville—Reinecke Construction Co., capital \$25,000, incptd. by E. W. Reinecke, A. E. and Fred Dixon.

N. C., Greensboro — Amusements — City Theater Co., capital \$25,000, incptd. by A. B. Huff, W. C. Idol and A. M. Rankin.

Okla., Pryor— Heating System—Vaughn & Medlen, Fort Smith, Ark. received contract to install steam heating mains in East Oklahoma Home, at \$18,000.

S. C., Woodruff—Printing—Woodruff Times, P. W. Smith, Editor, Greer, S. C., will erect 25x80-ft. building; install mehy. for printing and publishing; bids open. (Lately noted.)

Tenn., Athens—Athens Steam Laundry, Martin & Son, Propr. will erect plant addition, double capacity.

Tex., Brownsville—Sweet Brier Dairy Farm Co., capital \$25,000, incptd. by A. K. Black, W. S. and A. K. Aldrich.

Tex., Dallas—Texas Publishing House, 1704 St. Louis St. established plant for printing of magazines and newspapers.

Tex., Houston — Gulf Publishing Co., increased capital to \$60,000.

Tex., Stephenville—Dairy—W. G. Kelley Co., incptd. by W. G. Kelley, Fred Chandler, Jr., and M. C. Nichols.

Va., Lexington—Sheridan Transfer Co., capital \$25,000, incptd. with Leo. G. Sheridan, Prest.; W. L. Foltz, Secy.

Va., Norfolk—Chesapeake Stevedoring Corp. H. L. Lowrey, Prest., increased capital to \$75,000.

Va., Petersburg—Hygrade Amusement Co., incptd. with R. B. Huber, Prest.; Gordon W. Shepherd, Secy.

Va., Roanoke-Graves Humphreys Hardware Co. increased capital to \$150,000.

W. Va., Bluefield—Laundry—John W. Blakley and others purchased building and equipment of established laundry, contemplates installing additional mehy, and operate.

W. Va., Bluefield—Mercer Park Assn., Union Bank & Trust Bldg. (lately noted incptd., capital \$150,000) organized with C. H. Harmon, Prest., Tazewell, Va.; H. A. Hughes, Mgr., Bluefield; will establish amusement park, erect 90x90-ft. pavillon, 100x200-ft. plunge, roller coaster, etc.; blds open. See Mchy. Wanted—Stone Crusher; Amusement Park Equipment.)

W. Va., Camden—Amusements—Camden Seaplane Co., purchased Camden Park, will install additional amusement devices, make repairs, etc.

W. Va., Charleston-Incinerator-For full details see Mchy. Wanted-Incinerator.

W. Va., Clarksburg—Family Laundry, organized with I. H. Beall, Prest.-Mgr.; Agnes Beall, Secy.; install about \$4000 mchy. for

wet wash laundry. (Lately noted incptd., capital \$10,000.)

Miscellaneous Factories.

Fla., Ft. Pierce—Candy—Louis Quaiges, of Quebec, Canada, reported to establish candy factory.

Ga., Savannah — Savannah Co-operative Creamery, capital \$25,000, incptd. by S. G. Ryals, F. M. Eslick, Gratz Dentz. (Lately noted to open bids Dec. 1 for construction of Creamery.)

La., Monroe—Carbon—A. L. Register, of Phila., reported interested in erection of Carbon plant; also contemplates erecting 16.-000 H. P. natural gas engine driven electric plant for distribution of electric current for industrial purposes. Address S. M. Collins, Secy. Monroe Chamber of Commerce.

La., Monroe—Lamp Chimneys, etc.—Monroe Glass Co., organized with John Rosenberger, Prest.; John Hartman, Vice-Prest.; both of Alexandria, La.; capital \$25,000, will establish plant to mfre. lamp chimneys and other glass products.

La., New Orleans—Boxes—N. A. Woody Paper Box Co., will establish plant corner of Tulane Ave. and Hennessey St.

Md., Baltimore—Chesapeake Shoe Mfg. Co., David E. Goldstrom, Prest., lately noted incptd. has plant at 101-103 Balderson St., will install mchy. for mfre of childrens shees; daily capacity 1000 pr. shoes.

Mo., Aurora—Shoes—Juvenile Shoe Corp. let contract for erection of addition to plant. (Lately noted.)

Mo., Jefferson City—City Hall Drug Co., capital \$20,000, incptd. by G. M. Scheu, Dr. W. R. Coryell, H. J. Knapp.

Mo. Kansas City—Fred Schwartz Glass & Supply Co., capital \$5000, incptd. by Fred Schwartz, Emil Metschan.

Mo., Kansas City-Whitaker Battery Co. will construct battery plant at 1720-22 Charlotte St.

N. C., Greensboro—Davis Drug Co., capital \$75,000, incptd, by W. B. and J. L. Davis, F. S. Peatree.

N. C., Greensboro—Orange-Crush Bottling Co., capital \$50,000, incptd. by J. L. Clyburn, of Charleston. S. C., A. S. Thomson, of Charlotte, N. C., C. J. Wasram, of Greensboro.

N. C., Salisbury—Homemade Eczema Salve Mfg. Co., Route 3, Box 10, will construct plant and install machinery.

N. C., Wadesboro—Coast Brand Overall Co., Charlotte, N. C., will establish plant.

N. C., Winston-Salem-J. G. Flynt Tobacco will increase capital and enlarge plant.

S. C., Columbia—Southern Shoe and Leather Co., capital \$25,000, incptd. with H. G. Barnwell, Prest.; L. L. Propst, Secy.

Tenn., Chattanooga—Southern Cotton & Paper Co. Mercer Reynolds, Prest. will increase capital to \$300,000.

Tenn., Chattanooga—Chattanooga Blow Pipe & Roofing Co., incptd. by Charles Ryerson, T. Pope Shepherd, Frank S. Carden.

Tenn., East Lake, P. O. Chattanooga—Roofing—National Roofing Co. of Tonawanda, N. Y. will construct roofing plant on five acre site; cost \$350,000.

Tex., Dallas—Garvey Vinegar Co., Thos. Garvey, Mgr. will establish vinegar factory, capacity 25,000 gal. per month.

Tex., Lufkin-Chamber of Commerce interested in establishment of overall plant.

Tex., San Marcos—Creamery—Hays County Creamery Assn., capital \$10,000, incptd. with Claude Ivey, Prest.; J. Ford Ivey, Mgr.

Va., Norfolk-Lady Nancy Toilet Prepara-

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

XUM

tion Co., capital \$25,000, ineptd. with L. W. Moore, Prest.; Nancy Moore, Secy.

Va., Richmond—Food Products—L. B. Sheffield Co., capitol \$20.000, incptd, with L. B. Sheffield, Prest.; M. S. Murphy, Secy.

Va., Richmond—Dixie Boot Shop, capital \$10,000, incptd. with Henry Holland, Prest.; E. Godsey, Secy.

Motor Cars, Garages, Tires, Etc.

Ala., Mobile—Showroom, etc.—P. D. Beville let contract to Dan E. Jett to construct 4 story building on Government St., estimated cost \$100,000, C. La Hitchinson, Archt.

D. C., Washington—Service Station—Lambert-Hudson Motors Co., will erect 2 story, 75x130-ft. service station at 22nd. and M Sts.; construction begun.

Fla., Ft. Lauderdale—Garage—T. J. Piers will erect 2 story, 50x130-ft, garage.

Fla., Jacksonville-Ford Motor Co., Detroit, Mich., reported to erect branch plant.

Fla., Jacksonville—Florida Hanson Motor Co., capital \$25,000, incptd. with E. J. Wrigley, Prest.-Treas.; Paul D. McGarry, Secy.

Ky., Paducah—Filling Station—Gulf Refining Co., Pittsburgh, Pa. will erect filling station and tanks at 3rd and Elizabert Sts.

Md., Baltimore — Service Station — Lane Bros., 3117 W. North Ave., will erect 2-story. 50x150-ft. automobile service and repair building: W. B. Gerwig. Archt., 600 Equitable Bldg.

Md., Baltimore—Garage—Wm. J. Tickner & Son, North and Pennsylvania Aves, let contract to Milton C. Davis, 902 W. 36th St., to erect 1 story, brick and reinforced concrete garage; \$75,000.

Md., Baltimore—Garage—Walter F. Kneip, let contract to Consolidated Engineering Co., Calvert Bldg. to erect 2 story, 88.3x97-ft. brick showroom and garage at 1107 Maryland Ave.; Otto G. Simonson, Archt., Maryland Casualty Bldg.

Md., Salisbury—Garage—S. R. Harvey, will erect garage on Naylor St.

Md., Salisbury—Filling Station—Hearn Oil Co. will erect filling station on E. Church St.

Mo., Atlanta—Garage—Overland Atlanta Co. will erect 60x96-ft. garage.

Mo., Joplin—Service Station—Joplin Supply Co. let contract to C. A. Dieter Construction Co., to erect 5 story, 75x120-ft. reinforced concrete sales and service station; \$200,000

Mo., Monett—J. V. Nelson and H. A. Gardner will construct filling station at Broadway and Central Ave.; white stucco: cost \$10.000.

Okla., Tulsa—Service Station, etc.—Frank R. McCullough, First National Bank Bldg. let contract to J. R. Burnside, 301 Drexel Bldg. to erect 2 story, 150x300-ft. brick and reinforced concrete sales room and service station; \$150,000.

Tex., Dallas—Tires, etc.—Affiliated Tire Stores Corp., capital \$50,000, incptd. by W. H. Spruce, C. C. King and J. T. Withers.

Tex., Fort Worth—Holt Garage & Auto Co., R. E. Holt, Mgr., 711 Commerce St., will install gasoline and oil station.

Tex., San Antonio—Travis Storage Garage \$20,000, incptd. by E. E. Jacobs, A. S. Wright and L. S. Whipple.

Tex., San Antonio—Garage, etc.—Day & Night Repair Shop, incptd, by Paul Prove, H. A. Gerloff and L. T. Shockley.

Tex., Waco—Filling Station—Gulf Refining Co. reported to erect 2 filling stations, one on 12th, and Columbus Sts. and one on 5th, and Garland Sts.; purchased sites.

Va., Roanoke-Jefferson Filling Station. 13th Sts.

capital \$25,000, incptd. with F. E. Huff, Prest.; R. C. Motley, Secy.

W. Va., Huntington—Citizens Motor Car Co., capital \$10,000, incptd. by W. C. Jaeger, R. T. Berry and W. J. Connell.

Railways.

Okla., Picher—Joplin & Pittsburgh Electric Railway Co. is reported to have completed plans for an extension from Columbus, Kan., to Picher. Bruce Cameron, Pittsburgh, Kan., is V.-P. & Gen. Mgr.

Railway Shops, Terminals, Roundhouses, Etc.

Tex., El Paso—Texas & Pacific Ry. Co., E. F. Mitchell, Chief Engr., Dallas, Tex., will expend \$50,000 on shop improvements; construct 100-ft. turntable, etc.

Road and Street Construction.

Ala., Albany—Henry Hartung, Mayor, plans paving about 5 mi. streets and avenues; penetration asphalt; \$150,000; M. S. Bingham, Engr.

Ala., Decatur—State Highway Dept., Montgomery, Ala. For full details see Mchy. Wanted—Road Construction.

Ala., Gadsden—City will pave Alabama Ave., from 12th to Tuscaloosa Ave., to complete city's share of Artalla-Alabama City-Gadsden Blvd.; also 7th St. from Forest to Chestnut. Address The Mayor.

Ala., Livingston—State Highway Dept., Montgomery, Ala. For full details see Mchy. Wanted—Road and Bridge Construction.

Ala., Tuscaloosa—City Commrs., D. B. Robertson, Prest., let contract to J. A. Taylor, Tuscaloosa, at \$27,306, for 12,000 sq. yds. street paving, including 10th and Broad Sts., 16th Ave. and Parkway on Greensboro Ave. (Lately noted.)

Ark., El Dorado—City let contract to V. E. Schevenell Constructing Co., Memphis, Tenn., at approximately \$250,000 for street paving and storm sewer construction; 86,331 sq. yd. 6-in. concrete pavement; 55,650 lin. ft. curb; Ford & McCrea, Engrs., Little Rock, Ark.

Ark., Little Rock—City let contract to Morena-Burkham Construction Co., St. Louis, Mo., at \$40,000, to pave Main St. from Markham to 8th Sts. Address The Mayor.

Ark., Little Rock—Pulaski County Commrs., Road Improvement Dist. No. 10, H. S. Turner, Secy., let contracts at \$1,750.000 for follow ing:

33 mi. new road from 18th St., North Little Rock to Levy; all Palarm section; Barber Ave. and Confederate Blvd. to City limits; Pine Bluff road to Dollarway road at Farrell; to Standard Paving Co., Little Rock.

7¼ mi. of Baucum road; to Johnson Team & Dry Co., Little Rock.

Ark., Lonoke—Lonoke County Commrs., Road Development Dist. No. 13. For full details see Mchy. Wanted—Road Construction.

Ark., Paragould—Commrs. of Street Improvement Dist. No. 3, J. B. Kirchoff, Secy., let contract to Kaw Paving Co., Topeka, Kansas, at \$61,609, to pave 20 blocks in Dist.

Ark., Pine Bluff—City, Paving Dist. No. 62 plans paving 14 blocks in southwestern section, including Harding, Elm and Oak Sts.; concrete; \$40,000 to \$50,000; Fred. Bennitt, Engr.

Ark., Pine Bluff.—Commrs. of Poplar St., Paving, Curb & Gutter Dist., let contract to H. E. Monk, Pine Bluff, at \$79,081.10 to pave 40 blocks with 6-in. reinforced concrete; lay curbs and gutters; install storm swers; district embraces Poplar, 25th, 21th, 17th and 13th Sts. Fla., Dade City—Pasco County Commra, will improve 33 mi. road from Dade City to Gulf Coast, through San Antonio, Pasco and Fivvay Junction; J. W. Turner, Lakeland, Fla., Engr. (Lately noted.)

Fla., Dade City—Pasco County, Highlands Special, Road & Bridge Dist. For full details see Mchy. Wanted—Road Construction.

Fla., Jacksonville—Duval County Commuplan building 2.46 ml. road between Neptune Beach and Pablo Beach.

Extend San Jose Blvd. 2 mi., from present terminus to St. Augustine road; Geo. B. Hll. lis, County Engr.

Fla., Miami—Dade County Commrs. will improve roads; voted \$1,000,000 bonds. (Lately noted.)

Fla., Orlando—For full details See Land Developments,

Fla., Pinellas Park—Pinellas County will improve streets; C. E. Burleson, County Road Engr.

Fla., Tampa City-For full details & Machinery Wanted-Paving.

Fla., Zephyrhills—F. E. Tomlinson, Mayor, will pave 3½ to 4½ blocks on 5th Ave.; voted \$10,000 bonds. (Lately noted.)

Ga., Augusta—Government let contract to Hodgson & Jones, Montgomery, Ala., to improve 1 ml. gravel road and sidewalks around Lenwood Hospital.

Ky., Catlettsburg—S. D. Wheeler, Mayor, let contract to Elswick & Ramey to pare Cemetery road from Court St to top of Cemetery Hill.

To Adolph Williams for 4000 ft. on Valley St., and square on Spring St.

Kentucky-State Highway Comsn., Frankfort, will build 11 roads. For full details see Mchy, Wanted-Road Construction.

Ky., Pineville—Bell County plans improving 3 roads; Harlan, Straight Creek roads out of Pineville, and Baptist Gap above Middlesbore; build bridges; vote in Nov. on \$400,000 bonds. Address County Commrs.

Ky., Whitley City—McCreary County will build county's part of Cincinnati—Lookout Mountain Air Line road; voted \$200,000 bonds. Address County Commrs.

La., Abbeville—Vermillion Parish Police Jury will build hard surfaced roads; votel \$500,000 bonds. (Lately noted.)

La., Alexandria—City. For full details see Mchy. Wanted—Paving.

La., Bastrop—Morehouse Parish Police Jury plans building roads in Districts Nos. 1 and 2; contemplates voting on \$1,100,000 bonds.

La., Baton Rouge—City, Geo. W. Garig. Commr. of Public Parks and Streets, plans laying 3 ml. sidewalks on following streets; Dooley, Persimmon, Menard, Champagas, Cherokee, Scott, Stone, Palmer, Hosey, Con-

La., Jennings—City will pave streets with gravel; voted \$135,000. Address The Mayor.

La., New Roads—Louisiana Highway Consn., Raymond Bldg., Baton Rouge, La., received bids to complete 3 mi. gravel road of Red Cross Swamp, Pointe-Coupee Parish, m. Atchafalaya River; low bidder, Maggio & Allelo, Baton Rouge, at \$10,060. (Lately noted.)

Md., Baltimore—City. For full details & Mchy. Wanted—Paving.

Md., Baltimore—City, Paving, R. Kelli Compton, Chrmn., plans paving Morelia real from Ailsa to Strathmore Aves.; Etta Vista Ave. from Strathmore to St. Helen's Aves.; Ailsa Ave. from Morella road to Etta Vista Ave.

In writing to parties mentioned in this department, it will be of advantage to all conterned if the Manufacturers Record is mentioned.

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ntioned.

Md., Baltimore—Public Improvement Comsn., authorized building 1 mi. concrete road from sewerage disposal plant at Back River; \$42,000; bids opened Sept. 20.

Maryland-State Roads Comsn., 601 Garrett Bldg., Baltimore, Md., let contracts for following:

Harford County, 1.08 ml. concrete road from Dublin toward Whiteford; to Sutton Contracting Co., Philadelphia, Pa., at \$38,216. Calvert County, 4.02 ml. gravel road from Prince Frederick toward Holland Point; to Thomas Mullan, 3945 Greenmount Ave., Balti-

more, at \$29,276.
Prince Georges County, 2.01 mi. gravel, road from Forestville toward Ritchie; to E. R. P. Smith, at \$16,355.

Md., Baltimore—City, Paving Comsn., R. Keith Compton. Chrmn., plans paving Kenoak Ave. from Old Pimlico road to Cross Country Blvd. and on to South Ave.

Miss., Canton—Madison County, Board of Supvrs., will let contract soon to gravel 24 mi. road in Dist. No. 3

Miss., Coffeeville—Yalobusha County Board of Sapvrs. contemplates hard surfacing Jeff Davis Highway through County; Federal Aid secured.

Miss., Collins—Covington County Dist. No. 4, will build and maintain roads in Mt. Olive and Arbo precincts; votes \$50,000 bonds. Address County Commrs.

Miss., Hazlehurst—Copiah County, Fourth Supvrs. District, will build 15 mi. gravel road; voted \$50,000 bonds.

Miss., Jackson—Hinds County Board of Suprrs. For full details See Mchy. Wanted -Road Construction.

Miss., Starkville—Oktibbeha County Highway Commrs. Dist. Nos. 1 and 4, will build 4 roads. For full details see Mchy. Wanted—Road Construction.

Missouri-State Highway Dept., Jefferson City, Mo., let contracts for following:

St. Clair County, 2.104 ml. State road through Osceola, Osage Valley Highway; gravel pavement; Federal Aid Project No. 100 A; to Allhands & Davis, Joplin, Mo., at \$8716.47.

Macon County, 2.803 mi. State road through Macon, Daniel Boone Trail; State Aid Project No. 20,180; to Cooper Construction Co., St. Louis, Mo., at \$9376.84.

Lawrence County, 3.905 ml. State road from Monett to Springfield; gravel surfacing and pavement; Federal Aid Project No. 42; to C. I. Williams, Monett, Mo., at \$8292.10

Missouri—State Highway Dept., Jefferson City, Mo., let contracts for following:

Laclede County, 4.788 mi. State road east and west of Lebanon; State Aid Project No. 20,179; to Davis Construction Co., Imboden, Ark., at \$19,777.78.

Laclede County, 5.075 Mi. State road from Springfield to St. Louis, Mo.; Federal Aid Project No. 89-B; to Case & Killian, Marshfield, Mo., at \$29,454.47.

Jasper County, 1.393 mi. State road from Carthage to Springfield; Federal Aid Project No. 168-A; one course plain concrete; to Carterville Construction Co., Carterville, Mo., at \$36,678,70.

Lafayette County, 4.694 mi. State road east and west from Higginsville; State Aid Project No. 20,164; to Ed. Juckseh, Oswego, Kansas, at \$21,897.82.

Mo., Butler—Bates County Commrs., let contract to Western Bridge Co., Harrison-ville, Mo., at \$15,800, for 2½ ml. State road from Butler to Rich Hill.

Mo., Cameron—City will pave Walnut St. from 3rd to 8th; invites bids. Address The Mayor.

Mo., Chillicothe-City will pave Main St.

from 3rd to 2nd with cement concrete. Address The Mayor,

Mo., Columbia—City let contract to R. M. Perkins Construction Co., Kansas City, Mo., at \$13,946.48, to surface, resurface and repair streets. Address The Mayor.

Mo., Jefferson City-Mayor Hunt will improve Clark Ave. and Moreau Drive.

Mo., Kansas City—For full details See Land Developments.

Mo., Marshall—City plans paving 2 blocks of W. Arrow St.; vitrified brick and asphalt binder; contemplates other streets. Address The Mayor.

Mo., Poplar Bluff—City plans paving $4\frac{1}{2}$ mi. streets with concrete. Address the Mayor.

Mo., Richmond—Ray County, Forrest Smith, County Clk., will bulld hard roads, bridges across Missouri River, voted \$192,000 bonds. (Lately noted.)

Mo, Richmond—City contemplates paving Franklin, Lexington and S. Shaw Sts. Address The Mayor.

Mo., Springfield—City will let contract soon to pave 2500 ft. Kickapoo Ave.; tarvia. Address The Mayor,

Mo., St. Louis—City. For full details see Mchy. Wanted.—Paving.

Mo., Trenton—Grundy County. For full details see Mchy. Wanted—Road Construction.

Mo., Westplains—State Highway Comsn., Jefferson City, Mo., received bids for following sections, Howell County State Project No. 51:

From Willow Springs to Texas County line; low bidder, Jones-Harlin Construction Co., Westplains, at \$36,218.89;

From point near County line, east of Westplains to Oregon County line; low bidder, Cooper Construction Service, St. Louis, Mo., at \$43,109.51.

N. C., Mount Holly—City let contract to Caroline Contracting Co., at \$35,000 to pave Main St. from interurban tracks to bridge at Dutchman's Creek. Address The Mayor.

N. C., Nashville—Nash County Highway Comsn., W. S. Wilkerson, Chrmn., 'plans building gravel or sand clay road from Nashville to Bailey, via Strickland's Mill; bids opened Sept. 16.

Okla., Wagoner—City Commrs. will pave 4 blocks in business section; \$30,000; bids opened.

S. C., Aiken—City. For full details See Mchy. Wanted—Paving.

S. C., Charleston—Charleston County Sanitary & Drainage Comsn., 39 Broad St., Charleston, S. C., receives bids for following: 9.55 ml. hard surfaced road between point near Tide Water Creek and Atlantic Coast

near Tide Water Creek and Atlantic Coast Line Crossing near Meggett; St. Andrew Parish; low bidder, Public Service Production Co., Newark, N. J., at \$296,377.84.

10.701 mi. shell road on Mt. Pleasant-Mc-Clellenville road, from 7 to 18 mi. post; Christ Church Parish; low bidder, J. C. Fairy, Orangeburg, S. C., at \$64,723.36.

Tenn., Athens-City. For full details See Mchy. Wanted-Paving.

Tenn., Athens—City plans paving main residence streets. Address The Mayor.

Tenn., Memphis—City will improve 3rd St. from Beale to Calhoun; contemplates improving Front St. from Auction to Calhoun, and Union Ave. from 3rd to Myrtle. Address The Mayor.

Tex., Bryan—City. For full details see Mchy. Wanted—Paving.

Tex., Coleman—Coleman County Commrs. Court, L. G. Matthews, County Judge, let con-

tract to Scarborough, Davis & Co., Dallas, Tex., to improve 10.85 mi, State Highway No. 7; Federal Aid Project No. 303; W. E. Dickerson, County Engr.

Tex., Dallas—S. Aldredge, Mayor., plans widening and extending S. Lamar St. to Forest Ave.

Tex., Houston—Harris County Commurs. Court, will improve roads in County; plaus voting in Nov. on \$6,000,000 bonds.

Tex., Houston-O. F. Holcombe, Mayor plans paving streets in City Park; 2-in, asphalt or bituminous topping on gravel base.

Virginia—State Highway Comsn., Richmond, Va., will build 5 roads. For full details see Mchy. Wanted—Road Construction.

Va., Berkley Sta., Norfolk—C. M. Ashburner, City Mgr., plans paving Berkley Ave. from Main to Chestnut St.; \$10,100.

Va., Norfolk—Peninsula Highway Corp., organized with Henry G. Barbee, Prest.; W. W. Robertson, V.-P.; W. L. Taylor, Secy.-Treas.; will furnish \$100,000 toward building or completing State highway from Hampton Roads to Richmond.

Va.. Portsmouth—J. P. Jervey, City Mgr., plans improving sidewalk at Crawford and First Sts., and smooth surfacing Crawford St.; \$5700.

Va., Richmond—Allen J. Saville, Director of Public Works, let contract to H. H. George & Son. at \$9000 to grade new street; 21,000 cu. yds. excavation. (See Mchy. Wanted—Paving Materials; Asphalt Paving Plant.)

W. Va., Huntington—Cabell County Commrs. plans building section Huntington-Logan road; bids until Sept. 18.

W. Va., Huntington—City Comsn., contemplates re-surfacing 5th Ave. from 13th to 16th Sts.

W. Va., Huntington—City. For full details See Mchy. Wanted—Pavin.

W. Va., Martinsburg—City. For full details See Mchy. Wanted—Paving.

Sewer Construction.

Ala., Gadsden—For full details See Mchy. Wanted—Sewer Construction.

Ala., Selma—City will construct sanitary sewer system, cost about \$50,000. Address The Mayor. (Lately noted.)

Ark., El Dorado—City let contract to V. E. Schevenell Construction Co., Memphis, Tenn., for construction of storm sewer and and street paving; cost approx. \$250,000; Ford & MacCrea, Engrs., Little Rock.

Ark., Little Rock-For full details see Road and Street Construction.

Fla., Eustis—City voted \$5000 to complete sewerage system. Address The Mayor. (Lately noted.)

Ky., Louisville—For full details see Mchy. Wanted—Sewer Construction.

Ky.. Madisonville—City, let contract at \$65,400 to Moreno-Burkham Construction Co., St. Louis, Mo., for construction of sanitary sewer system; Howerton-Tirsway Co., Engineers, Asheville, N. C. (Lately noted.)

Ky., Paintsville—For full details See Machinery Wanted—Sewer Construction.

La., Alexandria—For full details See Mchy. Wanted—Sewer Construction.

La., Covington—For full details See Mchy. Wanted—Water Works and Sewer System.

Md., Baltimore—For full details See Sewer Construction.

Mo., Carrollton—City contemplates completing sewer system; will vote on bonds. Address The Mayor,

Mo., Kansas City—For full details See Land Developments.

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Mo., St. Joseph—City has plans for extension of Blacksnake sewer, 12 ft. in diam.; cost \$86,000. Address The Mayor.

Mo., Trenton—City let contract to Clarkson Construction Co. to construct storm sewer in District No. 16. (Lately noted.)

N. C., Elkins-For full details see Mchy. Wanted-Water & Sewer System.

N. C., Fayetteville-For full details see Water Works.

N. C., Gastonia—City, R. G. Cherry, Mayor, will construct storm water culverts and sanitary sewer improvements; opens bids Sept. 19.

N. C., Sanford—Town let contract to Burlington Construction Co., Burlington, to construct extension to sewer system; Gilbert C. White, Engr. in Charge, Durham. (Lately noted.)

Okla., Skiatook-For full details see Water Works.

Tex., Ft. Worth—For full details see Mchy. Wanted—Sewer Construction.

Tex., Houston—City let contract at \$5855-50 to J. M. Davis for constructing storm sewer for Turner addition and Castle Court, also let contract to Chas. K. Horton for sanitary sewer on Ada St. between Pleander St. east and west of Ada. (Lately noted.)

Va.-Tenn., Bristol—City, S. G. Keller, City Mgr. let contract at about \$12,000 to R. M. Thurmond Co., Lynchburg, Va. for drainage of creek. (Lately noted.)

Shipbuilding Plants.

Ky., Paducah—Barges—Joyce-Watkins Tie Co., Chicago, Ill. and its subsidiary company, Arrow Transportation Co. reported to purchase 600 ft. river front property to erect barge building plant and marine ways.

Md., Salisbury—Smith & Williams Shipbuilding Co. reported to acquire additional 8 acres of wharf property, plans building 350 ft. wharf, 15 ft. deep, also erect 250-ft. cradle railway capable of hauling 1000 ton ship; approx. cost \$30,000.

W. Va., Wheeling—Marietta Packet Co., capital \$10,000, incptd. by W. B. Webster and Elmer Beaver.

Telephone Systems.

Fla., Orlando—Southern Bell Telephone Co., John L. Moore, Div. Plant Supt., Savannah, Ga., plans expending \$150,000 within next 2 or 3 yrs.

Textile Mills.

Ala., Andalusia—Hosiery—O. L. Benson, C. B. Mathews, J. E. Shreve and others interested in organizing company with \$60,000 capital to establish hosiery mill.

Ga., Eagan—Martell Mfg. Co., has plans for addition to mills at Columbia, S. C., Batesburg, Spartanburg, S. C., Lexington and Asheville, N. C., \$2,000,000 available.

N. C., Asheville-See Ga.-Eagan.

N. C., Burlington—Victory Hoslery Mfg. Co., capital \$100,000, incptd. with R. H. Whitehead, Prest.; R. A. Coble, V.-P.; L. C. Chrismon, Secy.; has plant for mfre. hoslery.

N. C., Burlington—Burlington Mills, capital \$100,000, incptd. with R. H. Whitehead, Prest.; F. A. Walker, V.-P.; C. A. Walker, Secy.-Treas; has plant.

N. C., Burlington—Aurora Cotton Mills will construct extension to plant; 52x163 ft.; 2 story and basement; standard mill construction; construction by owner; J. E. Sirrine & Co., Engrs., Greenville, S. C.

N. C., Cherryville—Josephine Knitting Mills will erect mill; construction begun.

N. C., Lexington-See Ga.-Eagan.

N. C., Monroe—Iceman Knitting Mills, Inc., Icemorlee Cotton Mills Co., Everett Cotton Mills, Inc., will consolidate with \$1,500,000 capital stock, Charles Iceman, Mgr.

S. C., Batesburg-See Ga.-Eagan.

S. C., Columbia—See Ga.—Eagan.

S. C., Spartanburg-See Ga.-Eagan.

Tenn., Chattanooga—The Browning Hosiery Mills, E. Main St. plans installation of new equipment.

W. Va., Princeton—Hosiery—Princeton Hosiery Mills Co., lately noted incptd. with \$75,000 capital, L. G. Bowling, Prest. has site and will erect mill.

Water Works.

Ala., Jasper—Jasper Water Co., will install sedimentation and filtering system at Lovely St. and 10th Ave., consisting of 2 pumps capable of 110 lbs. pressure, 2 centrifugal pumps, one of 350 gal. per minute, the other 250 gal. per minute, filter, etc.

Ark., Russellville—W. G. Neazel, John W. White and R. L. Jenkins, Water and Light Commrs. will soon receive estimates for water and electric light plant.

Fla., Orlando—For full details See Land Developments.

Fla., Zephyrhills—City, F. E. Tomlinson, Mayor, will construct water works system, iron tank of 100,000 gal. capacity; voted \$27,000 bonds. (Lately noted.)

La., Covington—Fos full details See Mchy. Wanted—Water Works and Sewer System.

Md., Laurel-For full details See Mchy. Wanted-Reservoir.

 $\begin{array}{lll} \mbox{Miss.. Richton---City let contract at $11,000$ \\ t_0 \ P. \ H. \ Porter, \ Clinton, \ Ky., \ for \ installing \\ \mbox{water works system.} & \ (\mbox{Lately noted.}) \end{array}$

Mo., Paris—For full details See Electric Light and Power Plants.

N. C., Elkins—For full details see Mchy. Wanted—Water & Sewer System.

N. C., Fayetteville—City will improve and extend water works and sewerage system; cost about \$250,000; W. C. Olsen, Conslt. Engr., Kinston.

N. C., Greensboro—For full details See Mchy. Wanted—Filtration Plant.

Okla. Madill—City, Burr Wright, Mgr. let contract to John T. Ables, at \$47.721 for dam and intake and at \$18,340 for filtration plant. (Lately noted.)

Okla., Skiatook—City will extend water and sewer system, voted \$44,000 bonds. Address The Mayor. (Lately noted.)

Tenn., Johnson City—City will improve water works system; will vote on \$65,000 bonds. Address The Mayor.

Tex., Austin—City, Walter L. Eyres, Water & Light Commr., contemplates improvements to water system, will probably vote on \$400,-000 honds.

Tex., Gunther—W. R. Huckaby of Van Alstyne, purchased and will improve water works plant.

Tex., Somerset—Somerset Water Co., capital \$30,000, incptd. by G. N. Evans, G. Owens.

Va., Bristol—City, S. G. Keller, City Mgr., will let contract Sept. 19 for construction of 1,000,000 gal. capacity filtration plant to cost \$25,000; will construct reservoir of 50,000 gal. capacity, cost approx. \$15,000; contract for equipment let to Roberts Filter Mfg. Co., Darby, Pa.; Chas. Davis, Bristol, Engr.

W. Va., Salem-City plans improvement to water supply; Fuller-McClintock Co., Engrs.

W. Va., South Charleston, Branch of Charleston—Town will install water plant; will vote on bonds. Address The Mayor.

Woodworking Plant.

Ga., Athens—Show Cases, etc.—W. S. Taf. far, Gainesville, Ga. leased building for mfre. of show cases, store and office fixtures, etc.

Mo., Poplar Bluff—Cooperage—Brooklyn Cooperage Co. will rebuild plant. (Lately noted burned at loss of \$65,000.)

N. C., High Point—Washboards—Carolina Washboard Co., Randolph Jordan, Prest., Raleigh, N. C., reported to erect plant for mfre. of washboards; purchased 300x310-ft. site.

Tenn., Chattanooga—W. C. Green Furniture Co., increased capital to \$65,000.

Va., Roanoke—Egg Cases, etc.—Chicago Mill & Lumber Co., 1511 S. Jefferson 8t., contemplate increasing output; mfre. egg cases, banana hampers, etc.

Va., Suffolk—Wagons, etc.—Parker Mfg. Co., C. E. Parker, Prest., has tentative plans for rebuilding burned plant; approx. cost \$50,000.

FIRE DAMAGE

Ark., Little Rock—W. J. Richardson's residence on 19th St. Pike.

Ark., Thornton—Stout Lumber Co.'s veneer and planing plant; estimated loss \$200,000.

Fla, Milton-W. L. Jernigan's residence on brick road.

Ga., Atlanta—J. M. Estes's residence, 10 Kirkwood Rd.; loss \$10,000.

Ga., Macon—Atlantic Ice & Coal Corp.'s stables; loss not estimated.

Md., Baltimore-Wm. Beehler, Inc.'s store and factory, 222 W. Lexington St.

Md., Lonaconing—Hugh Young and John Smith's double residence, owned by Maryland Coal Co.

Md., Nanticoke—H. James Messick's store

Mo., Caruthersville—Municipal electric light and ice plant.

Mo., St. Louis—Lewin Metals Co.'s ware house, 23 Branch St.

N. C., Concord-J. L. Forbes' flour mill.

N. C., Concord—Administration building at Stonewall Jackson Training School; low \$75,000.

N. C., Greensboro—Garage and pressing establishment in building owned by W. H. Lee; loss \$10,000.

S. C., Chester-Wm. A. Coln's residence.

S. C., Greenwood—Electric Mattress factory on Maxwell Ave.

S. C., Johnsonville—S. B. Poston's ware house leased by Co-operative Marketing Assn.

S. C., Rhems—F. Rhems & Son's coffin and casket plant; loss not estimated.

Tex., Dallas—Building occupied by Chriswell Furniture Co. and Dallas Hardware Co. loss \$90,000.

Tex., Dallas—First Presbyterian Church rectory; loss about \$10,000. Address Dr. Wm. M. Anderson, Sr., Pastor.

Tex., San Saba-R. S. Crain's gin plant; loss \$10,000.

Va., Disputanta—Disputanta Peanut Co's plant.

Va., Lynchburg—Nathan Campbell's dwelling in Amherst County about 20 miles from Lynchburg.

Va., Roanoke-Roanoke Country Club; loss \$15,000.

W. Va., Kenova—Tri-State Grocery Ca's

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BUILDING NEWS

BUILDINGS PROPOSED

Apartment Houses.

D. C., Washington-W. L. Scaffer will erect \$25,000 building, 3538 Rock Creek Church Road, N. W.; 2 stories; brick; owner builds.

Pla., Miami Beach-S. D. Glasgow, Miami, will erect \$25,000 building, Ocean Dr. near 6th St.; 3 stories; 12 apartments; hollow tile or concrete; sleeping porches; casement windows; owner builds.

Mo., Kansas City-C. O. Jones will erect \$20,000 apartment flat, 1605-07 W. 37th St.; 3 stories brick.

Mo., Kansas City-B. G. Mitchell will erect 3 four-story apartment buildings, Mill Creek Parkway; about \$200,000.

Tex., Dallas—B. A. Nicks will erect \$12,000 building, 3929-31 Gilbert St.; 16 rooms; 4 apartments; brick veneer.

Tex., Dallas-J. O. Rhodes will erect \$11,-000 building, 1315-17 Carroll St.; 10 rooms; 2 apartments; brick veneer,

Association and Fraternal.

Ala., Birmingham—Birmingham Lodge No. 79. B. P. O. E., will improve building, 8th Ave. and 19th St.; \$10,000; \$100,000 addition, lately noted, to be erected later.

Ala., Gadsden-Etowah County Post No. 5, American Legion, plans to erect or purchase and convert building for clubhouse.

Fla., Miami-Harvey Seeds Post, American Legion, Norris McElya, Commander, plans home and clubhouse; 125x85 ft.; auditorium to seat 800 or gymnasium on first floor; mezzanine; \$50,000.

La., New Orleans-American Legion plans to expend \$25,000 to remodel Old Mortgage Bldg., Royal and Conti Sts., for clubhouse.

Mo., Mountain Grove-Ancient Free and Accepted Masions will erect \$30,000 building: stone; Ionic design; 44x109 ft.; 2 stories and basement; auditorium and balcony to seat 900, motion picture projection room, etc.; Heckenlively & Mark, Archts., Spring-

Okla., Weleetka-Odd Fellows are considering building lodge hall over A. S. Moise Bldg., for which foundation has been started.

Tex., Houston-Knights of Columbus will erect \$200,000 building, Crawford and Walker Sts.; 6 stories; brick; 75x150 ft.

Bank and Office.

D. C., Washington-Chamber of Commerce of United States of America, D. A. Skinner, Sec., receives bids until Sept. 29 to erect building on Lafayette Sq.; \$1,500,000; 158x 149 ft.; 4 stories; Cass Gilbert, Archt., 244 Madison Ave. New York; American Bridge Co. 71 Broadway. New York, separate contract to furnish and erect steel work; plans also in hands of bidders for heating and ventilating, plumbing, electrical work and elevators; L. S. Gillette, Chrmn. Bldg. Comm., care Plymouth Investment Co., Minneapolis, Minn. (Lately noted.)

Fla., St. Petersburg-Jack Taylor will erect building, 5th St. and 1st Ave., North.

Md., Baltimore-Citizens National Bank, Hanover and Pratt Sts., Albert D. Graham, Prest.; will erect building, Light and Redwood Sts.; \$2.000,000; 20 stories; 116x77 ft.; fireproof; steel and Bedford limestone; banking room 43-ft. high, with mezzanine floor, 6 marble colums on each side; bank

entrance on Light St. and office entrance on Redwood St.; Graham, Anderson, Probst & White, Archts., Railway Exchange, Chicago. (Lately noted.)

Mo., St. Louis—Famous Players-Missouri Corp., Nathan Frank, Prest., will erect \$800,-000 office building on foundations already laid, Grand Blvd. and Lucas Ave.; 12 stories; stores on ground floors; Helfensteller, Hirsch & Watson, Archts., Chemical Bldg.

N. C., Charlotte-W. C. and W. F. Dowd; repair building lately noted burned; R. N.

N. C., Charlotte-Chemical Construction Co. will erect \$12,000 office building, South Blvd. and Palmer St.; 40x100 ft.; steel frame; tile and brick; 1 story.

S. C., Aiken-Croft Bldg. Co., will remodel Croft Bldg.; offices and 3 stores.

Tenn., Memphis-Columbian Life Assurance Society, Lloyd T. Binford, Prest., plans erecting 22-story office building, Court Ave. and Main St.; \$1,000,000; Gothle architecture; terra cotta facing; tower and mansard roofs finished in flat tile; elevators; ventilators, etc. (Lately noted.)

Va., Petersburg—Union Trust Co. will remodel 2 rooms in Mechanics Bldg.; \$40,000; C. W. Isbell, Archt.

Churches.

Ala., Birmingham—Dr. Edw. G. Mackay, Pastor, Owenton Methodist Church, is interested in erection of building for James H. McCoy Memorial Methodist Church, South, at Owenton; \$125, including pews, organ, etc.; brick; stone trim; slate or asbestos shingle roof; oak floors; steam heat; Miller & Martin, Archts.

Ala., Cullman-Methodist Episcopal Church will erect building; 35 Sunday school rooms, nursery, etc.; hardwood finish; steam heat; pipe organ. Address The Pastor.

Ark., Forrest City-Good Shepherd Episcopal Church will remodel building; \$14,000; Gothic type; brick; stone trim; art glass windows; interlocking tile; organ; Jas; L. Gatling, Archt., Madison Ave. Bldg., Memphis, Tenn.

Ky., Louisville-Holy Trinity Church of St. Matthews will erect \$20,000 parish house; brick and cut stone; 2 stories. Address The

Middletown-Baptist Church, Howard Williams, Pastor, plans building.

La., New Orleans-St. Catherine of Sienna will erect frame chapel on Metairie Ridge; Burke & Dufrechou, Archts., 411 Balter

Mo., Kansas City-Oakwood Baptist Church will erect \$14,000 community house, 31st St. and Spruce Ave.; \$75,000 church later. Address The Pastor.

Mo., Springfield-North Side Presbyterian Church will erect \$25,000 building; 77x85 ft.; ordinary construction; concrete and brick; gymnasium, swimming pool, etc.; W. L. Garver, Archt., 952 Hovey Ave.; bids opened about Sept. 25. (Lately noted.)

N. C., Charlotte-Building Comm., T. B. Phillips, Chairman, will erect Southside Baptist Church, S. Boulevard and Magnolia Ave.

N. C., Winston-Salem—First Baptist Church, B. F. Huntley, Chrmn. Bldg. Comm., will erect \$250,000 building on W. 5th St.;

Daugherty & Gardner, Archts., Stahlman Bldg., Nashville, Tenn. (Lately noted.)

S. C., Spartanburg—Bethel Methodist Church, W. G. Willard, Chrmn. Bldg. Comm., will erect Sunday school addition; 2 stories; 4 rooms.

Tenn., Chattanooga-First Baptist Church, Tenn., Chattanooga—First Baptist Church, B. F. Huntley, Chrmn. Bldg. Comm., will erect \$20,000 Sunday school addition; 4 storles; 20x75 ft.; ordinary and concrete construction; composition roof; wood floors; steam heat; electric lights; R. H. Hunt, Archt., James Bldg.; W. H. Sears, Supervising Archt.; bids opened Sept. 20. (Lately noted.)

Tenn., Chattanooga-Second Presbyterian Church, Rev. Dr. E. A. Elmore, Pastor, will erect \$60,000 addition; Indiana limestone.

Tenn., Jackson-Walnut Avenue Baptist Church, Rev. R. W. Fitzgerald, Pastor, plans building on Roberts Ave.

Tenn., Memphis-Warner Temple A. M. E. Zion Church will erect building, Williams and Porter Sts. Address The Pastor.

Tex., Dallas-Macedonia Baptist Church will erect \$15.000 annex, 906 Good St.; brick veneer. Address The Pastor.

Tex., Gonzales—Baptist Church will erect addition; M. L. Waller & Co., Archts., San Antonio.

Tex., San Antonio-Beacon Hill Methodist Church will erect church and Sunday school building; John M. Marriott, Archt., Main and Quincy Sts.

Va., Norton-Methodist Church will erect \$150,000 building. Address The Pastor.

City and County.

Miss., Jackson—Auditorium-Armory—Hinds County, O. B. Taylor, Chrmn. Auditorium Comm., voted \$60,000 bonds to erect armory in connection with \$90,000 auditorium already authorized, Congress and Pearl Sts. (Lately

Mo., Kansas City—Fire Stations, Nurses' Home, etc.—City votes in November on \$3,-200,000 bonds, including \$300,000 for 4 or 5 fire stations, sites and equipment, and \$300,000 for nurses' home and hospital improvements. Address Mayor Cromwell.

Mo., Kansas City-Armory-City will erect \$100,000 armory on Main St. south of Old Signal Corps Armory for 110th Engineers, Col. E. M. Stayton, Commdr. (Previously noted.)

N. C., Henderson-Home-Vance County Commrs. will erect county home; Eric Flannagan, Engr., Riggan Opera House: opened Sept. 20. Address P. E. Rossian Register of Deeds.

N. C., Morganton-Home-Burke County Commrs, B. L. Millner, Chrmn., will erect brick building at County Home; Louis H. Asbury, Archt., Realty Bldg., Charlotte; bids opened Sept. 18.

Okla., Miami-Convention Hall-City will erect convention hall. Address The Mayor.

Okla., Sulphur-Memorial Hall-City will erect \$30,000 memorial hall; 1 story and basement; 100 basement; 100x125 ft.; brick and stone; Jewell Hicks, Archt., 19½ Main St., Oklahoma City.

Tenn., Knoxville-Detention Home-City, E. W. Neal, Mayor, will erect juvenile detention home, Clinch Ave. and Henley St.; Barber & McMurray, Archts.; bids received Sept. 21 and opened Sept. 26. (Previously noted.)

Tex., Austin-Pavilion-City, Walter L. Eyres, Commr. Water & Light Dept., will erect pavilion at Barton Springs.

Tex., Corpus Christi-Pavilion-City, C. J. Howard, Engr., will erect pavilion at pleasure pier; 30x50 ft.; roof, 35x55 ft.

Tex., San Angelo-Auditorium-City Comm. will call election in October on \$110,000 bonds for auditorium.

Tex., Seymour-City Hall-City voted \$40,-000 bonds for city hall, \$8000 for park improvements and \$25,000 for water Address City Commrs. (Lately noted.)

Tex., Slaton-City Hall-City will erect city hall; \$25,000 bonds available. Address The Mayor.

Courthouses.

Ark., Charleston-Franklin County Commrs., T. A. Watson, receive bids until Sept. 30 to erect courthouse on Main St.; Colonial type: 2 stories and basement: 44x70 ft.; brick, stone and cement; concrete and wood floors; metal ceilings; steam heat; vaults; Frank W. Gibb, Archt., 227 Gazette Bldg., Little Rock. (Lately noted.)

Fla., Tavares-Lake County will vote Oct. 10 on \$250,000 bonds for courthouse; brick; stuccoed: Allan McDonough, Eustis, probable archt. Address County Commrs. (Lately noted.)

Miss., Hattiesburg-Forrest County Board of Supervisors rejected bids to alter and erect addition to courthouse; \$50,000; brick and frame: composition flat roof: tile and wood floors: Emmett J. Hull, Archt., Jackson; Herbert Gillis, Chancery Clerk, receives new bids until Sept 23. (Lately noted.)

Dwellings.

Ark., Rogers-Elmo Walker, Mgr., Union Life Ins. Co.; \$10,000 dwelling, S. Fifth St.; A. O. Clark, Archt.-Contr.

D. C., Washington-Morris Cafritz, 913 15th St., N. W. will erect 11 dwellings, 4608-28 Eighth St., N. W.; \$75,000; 2 stories; brick; owner builds.

D. C., Washington—A. B. Campbell will erect 3 dwellings, 132-36 Neal St., N. E.; \$14,500; 2 stories; frame; owner builds.

D. C., Washington-Harry Wardman, 1430 K St., N. W., is having plans prepared for second group of dwellings in English Village development. Klingle Rd.; 6 and 8 rooms with 1 and 2 baths.

Fla., Daytona-R. M. Bailey is erecting 8 bungalows in connection with development of Bailey Court, 2nd to San Juan Aves., between N. Beach St. and Ridgewood Ave.; Spanish type: stucco: ventilators.

Fla., Kissimme-F. E. Woodward will erect 4 bungalows, Main and Orange Sts.

Fla., Ortega-Dr. Lynwood Evans, Jacksonville, purchased site near Florida Country Club and plans dwelling.

Fla., Ortega-Col. Raymond C. Truck, Jacksonville, purchased site on St. John's River and plans residence.

La., New Orleans-Mater Doloresa Parish will rebuild rectory, Carrollton Ave. and Plum St.; Burke & Dufrechou, Archts., 411 Balter Bldg.

La., New Orleans-Mrs. Jules Domecq will erect \$10,000 dwelling, Canal and Olympia Sts.; frame stucco.

La., New Orleans-United Lumber Co. will 2 frame dwellings on Republic St. erect near Treasury St.

Md., Baltimore-City & Suburban Realty Co., Harford Rd. near Hamilton Ave., Hamilton, will erect 2 dwellings, Bateman Ave. near Glenmore Ave. and Clover Ave. near Elmwood Ave.; \$7000 each; 26.6x30 ft; 11/2 stories; frame; furnace heat; plans and construction by owner.

Md., Baltimore-J. Hurst Purnell. 4314 St. Paul St., will erect 30 dwellings, 1901-19 Wheeler and 1901-19, 1900-18 Ruxton Aves.; 24x34 ft.; 2 stories; brick; slag roofs;

steam heat; \$56,000; George Wessel, Archt., 2752 Winchester St.; owner builds. (Lately noted)

Md., Baltimore-Welsh Construction Co., 11 E. Fayette St., will erect 4 frame dwellings. Brighton Ave. near Auburn Rd.: one story; 26x32 ft.; steam heat; \$10,000; Geo. Wessel, Archt., 2752 Winchester St.; owner

Miss., Booneville-J. C. Stanley, will erect 7-room dwelling; Ideal brick; tile roof; tile porch; hardwood floors; hot water heat; built-in cabinet, linen closet, etc.; boiler, fuel rooms and laundry in basement; Walter R. Nelson, Archt., care Owner.

Miss., Crystal Springs-R. H. Jones will erect dwelling in Cook addition.

Miss., Crystal Springs-Planters Package Co. will erect 2 bungalows on S. Jackson St.

Mo., Jefferson City-Jones Realty Co., is erecting 9 dwellings on site former Friemel Garden; brick and stucco.

Kansas City-H. Kelley will erect two \$5000 dwellings, 5830-32 Woodland Ave.

N. C., Asheville-R. C. Davis will erect \$15,000 dwelling, N. Liberty St.; 8 rooms.

N. C., Charlotte—J. H. Roddey purchased site on Queens Rd. near Myers Park gate and plans dwelling.

N. C., Lexington-L. J. Peacock plans to erect dwelling on West Side Drive in addition to 1 under construction.

N. C., Lexington-Mrs. J. W. Trantham will erect dwelling on West Side Drive; foundation started.

Okla., Tulsa-L. H. White will erect \$10,-000 dwelling, 211 E. Jasper St.

S. C., Aiken-J. J. Sweeney will erect dwelling; plans completed.

Tenn., Chattanooga-Signal Mountain Coal & Mining Co. plans miners' village in connection with \$250,000 development between Suck and Middle Creeks, Signal Mt. Contracts Awarded-Dwellings-Tenn., Montlake.)

Tenn., Memphis-E. M. Lindsey will erect dwelling, McLean Blvd. and Carr St.; stucco and half timber; wood shingle roof; enclosed dining porch; Estes W. Mann, Archt., Madison Ave. Bldg.

Tenn., Nashville-D. W. Kuhlmann will erect \$4000 dwelling, 1107 Kyle St.; 4 rooms; frame; hot water heat, \$500; also \$6000 filling station, 923 Linden Ave.; tile and brick.

Tex., El Paso-H. W. Gehring Construction Co., will erect \$4000 brick and stone bungalow, block 62, Highland Park; also 2 brick bungalows, block 136 East El Paso addition; \$3000 each.

Tex., Houston-Swedman & Page will erect \$10,000 dwelling, 1112 Prospect Ave, ; 2 stories; 5 rooms; stucco.

Tex., Houston- F. J. Walter will erect \$10-000 dwelling, Montrose and 10th Sts.; 9 rooms; brick veneer.

Tex., San Antonio-Annette Smith will erect \$10,000 dwelling, W. Mistletoe Ave. near Belknap St.; 8 rooms.

Va., Richmond-P. S. Lubenski will erect \$17,000 dwelling, 3204 Chamberlayne Ave.;

Va., Richmond-Geo. R. Mayo will erect 2 dwellings, 3115-20 Griffin Ave.; \$5000 each; 2 stories; frame and stucco.

Va., Richmond-Jeannette R. Mayo will erect 4 frame dwellings, 1903-09 Princess Anne Ave.; \$18,000.

erect \$13,500 brick dwelling, 3104 Monument

Government and State,

Fla., St. Augustine-Barracks-Bldg. Com. Florida State Arsenal, Care Adjt. Gen. Chas. P. Lovell, receives bids until Oct. 2 to alter and erect addition to St. Francis Barracks for Arsenal; about \$40,000; 92x105 ft.; ordinary construction; bids for erection of build. complete, or for general construction, heating and kindred work separate; F. A. Hollingsworth, Archt.; plans and specifications from office Adjt. Gen.

W. Va., Charles Town-Post Office-Treas. ury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., receives bids until Oct. 6 for construction, including mechanical equipment, of post office; drawings and specifications from Custodian at site or from office Supervising Archt.

Hospitals, Sanitariums, Etc.

Ark., Conway-Chamber of Commerce and number of physicians will erect \$50,000 hossteam heat; financing arranged by Hockenberry System, Inc., Harrisburg, Pa.

Ky., Pikeville-United States Veterans' Bureau, Col. Chas. R. Forbes, Director, will erect \$250,000 trachoma hospital.

La., Shreveport-Dr. A. A. Herold will complete sanitarium for which foundation was laid by Consolidated Sanitarium Co.; freproof.

Miss., Gulfport—Bureau of Yards and Docks, Navy Dept., Washington, D. C., is preparing plans for 30 buildings at U. S. Public Health Service Hospital; hollow the stuccoed; tile roofs; \$5,000,000 appropriation available

Miss., Sanatorium-Lincoln County Board of Supervisors, J. Q. Brister, Prest., Brookhaven, plan to erect 20-bed ward at State Tuberculosis Sanatorium.

N. C., Greensboro-Guilford County, J. W. Cone, Chrmn. of Comm., will erect \$100,000 tubercular sanatorium on High Point Rd. near Arch Hill: T-shape: 135x206 ft . frame and brick veneer; asphalt shingle roof; composition and wood floors; vapor heat; water and sewer system, laundry and refrigerator plants; Harry Barton, Archt.; bids opened Oct. 5. (Previously noted.)

N. C., Henderson-Vance County Comms. will erect \$25,000 hospital; Eric G. Flanzaghan, Archt., Riggen Opera House; bids opened Sent. 20.

S. C., Greenwood-Brewer Normal Inst. Prof. H. A. Beadle, will erect negro hospital on grounds; plans by architect of American Missionary Society, New York.

Tex., Fort Worth-Board of Trustees, Harris Memorial Methodist Hospital, J. Erskine Williams, Sec., will erect \$1,000,000 hospital, Hornsby, Lake, Cannon and 6th Aves.: 400 rooms; 150-ft. front; central unit to be erected first; W. G. Clarkson, Archt. (Previously noted.)

Tex., Harlingen-Baptist Church will erect \$50,000 sanitarium. Address Chamber ef Commerce.

Hotels.

Fla., Plant City-Plant City Hotel Corps., Wm. Schneider, Chrmn., Bldg. Comm., will erect \$250,000 hotel; 105x105 ft.; 7 stories; construct one wing at present at cost of \$150,000; steel frame; metal floor joists: composition roof; tile, cement and wood floors; steam heat, Dunham system; electric lights; 2 passenger and 1 freight electric elevators; bids opened Nov. 1. Address M. Va., Richmond-P. S. Lubenski will erect | Leo Elliott, Archt., Tampa. (Previously noted)

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promoting erection of \$1,000,000 tourist hotel; W. C. Kreig, Archt., 111 W. Washington St., Chicago. Fla., West Palm Beach-Royal Palm Hotel

Co. Geo. A. Corson and others, will erect addition to hotel on Lakeview Ave.

Fla., Sarasota-Chamber of Commerce is

La., Spring Hill-Pine Woods Lumber Co.

Md. Ocean City-Mason-Dixon Hotel, incptd by Mrs. S. M. Mason, Dr. Otho Mason and Dr. Edmund Burk; will erect \$200,000 hotel; salt-water swimming pool, bowling alleys and dance floor in connection.

Md., Salisbury—Citizen's Hotel Committee, F. P. Adkins, Hooper S. Miles and I. L. Benjamin are promoting erection of \$250,000 hotel: Hotel Financing Corp., No. One Madison Ave., New York, will put on campaign in Nov. to finance project.

Miss. Tutwiler-Backstram Hotel Co. will erect \$40,000 building; 2 stories; brick and tile; 38 rooms; dining room to seat 75; J. Frazier Smith, Archt., Memphis, Tenn.

Mo., Springfield-A. J. Eisenmayer and F. X. Herr will remodel Fraternity Building for hotel; \$40,000; Heckenlively & Mark, Archts.

Okla., Cushing-Thompson Hotel will remodel building and erect addition; 1 story; 60x76 ft.; brick; stone trim; passenger elevator; J. O. Bradley & Co., Archts., Paw-huska; bids opened Sept. 20. (Lately noted.)

Tex., Denison-State National Bank, L. Blackford, Prest., will erect 5-story hotel and bank building; \$150,000; 120x75 ft.; bank on first floor: 100 rooms above.

Miscellaneous.

Tex., Brenham-Clubhouse-Brenham Country Club, W. J. Embrey, Prest., will construct clubhouse, swimming pool, golf links, etc.

Tex., Waco - Orphanage - Methodist Orphanage, W. F. Barnett, Mgr., 19 Herring Ave., receives bids until Oct. 4 to erect 2 story brick chapel and school; separate bids for heating and plumbing; hardwood and concrete floors; metal cellings; wire glass; steel sash and trim; accommodate 100; plans and specifications at office Milton W. Scott & Co., Archts. (Previously noted.)

Va., Norfolk-Fair-Norfolk Fair Assn., J. N. Montgomery, Mgr., will erect exhibit building; galvanized iron.

Va., Roanoke-Clubhouse-Roanoke Country Club Board of Directors will erect building to replace clubhouse noted burned at loss of \$15,000.

Schools.

Ala., Vance-County Board of Education, Tuscaloosa, will erect 6-room school at Vance and 5-room structure at Northport; bids opened Sept. 13.

Fla., Miami-City voted \$960,000 school bonds. Address Board of Public Instruction.

Fla., West Palm Beach-Palm Beach County Board of Public Instruction. Agnes Ballard, Supt., receives bids until Oct. 3 to erect school on Military Trail; plans and specifica-tions at office of O. J. Williams, Archt., and office Supt. of Public Instruction.

Ga., Rochelle-School Board will erect consolidated school; \$60,000 bonds available; Willis Irvin, Archt., Augusta. (Previously noted.)

Ky., Frankfort—Rev. Edward G. Kloster-man, 208 St. Clair St., receives bids until Sept. 22 to erect Good Shepherd School; plans and specifications at office Lyons Lumber Co. and Frankfort Lumber Co.

Ky., Murray-Normal School Commission, E. C. O'Rear, Chrmn., Frankfort, will erect | No. 113; bids opened Sept. 20.

buildings for Western Kentucky State Normal School: \$200,000.

La., New Orleans-Dominican Harrison Ave. and Catina St., will erect school building and church; \$35,000; frame; Toledano, Wogan & Bernard, Archts., Title Guarantee Bldg.

La., New Orleans-Orleans Parish School Board, Danl. J. Murphy, Prest., Nicuolax Bauer, Secy., will erect building, St. Claude and Alva Sts.; 3 stories; 240x240 ft.; 30 rooms; fireproof; E. A. Christy, City Archt., 25 City Hall Bldg.; O. M. Gwinn Constr. Co., is lowest bidder at \$249,636. (Lately noted.)

Md., Baltimore-Board of Awards, Mayor Wm. F. Broening, Prest., receives duplicate bids until Sept. 27 at office Richard Gwinn, City Register, City Hall, to erect Senior-Junior High School for colored students, A, B, C, D and E, Carey and Baker Sts.; drawings and specifications at office J. F. Crowther, Inspector of Bldgs., City Hall.

Md., Baltimore-Board of Awards, Mayor Wm. F. Broening, Prest., will erect \$30,000 addition to Western High School; Edw. L. Palmer, Jr., Archt., 513 N. Charles St.

Miss., Canton-District School Trustees will erect \$125,000 high school; N. W. Overstreet, Archt., Jackson. (Lately noted.)

Miss., Crystal Springs-School Trustees will erect \$75,000 high school.

Mo., St. Louis-Board of Education will erect senior high school, Hartford Blvd., Wyoming St., Louisiana and Compton Aves.; Gerhard Bldg. Co. is lowest bidder at

Mo., Vandalia-Board of Education will erect high school: 3 stories: brick: accommodate 200; 10 classrooms, 2 science lecture rooms, 4 laboratory rooms, manual training shop, study hall, library, gymnasium and auditorium combined; Earl Hawkins & Co., Archts., Springfield.

N. C., Concord-Stonewall Jackson Manual Training and Industrial School will rebuild administration building noted burned at loss of \$75,000.

N. C., Davidson-Davidson College, Dr. W. J. Martin, Prest., will erect 3 buildings to replace Chambers Hall previously noted burned; central building, 80x112 ft.; 4 stories; 30 classrooms; wings, 50 ft. long; 3 stories; 20 offices for teachers; north and south buildings, 64x112 ft.; 3 stories; departments of physics, biology, minerology, geology, ex-ecutive offices, museum, gallery and auditorium to seat 1200.

N. C., Haw River-Board of Education will erect 8-room school; steam heat; Linthi-cum & Linthicum, Archts.. Raleigh; bids opened Sept. 18.

N. C., Rocky Mount-School Board, W. S. Wilkinson, Chrmn., will erect North Rocky Mount School; Benton & Benton, Archts., Wilson; bids opened Sept. 22. (Previously

S. C., Greenville-County Board of Education will erect \$25,000 school in Augusta Road community; \$10,000 bonds voted to supplement \$15,000 already available; C. E. Hatch and others, Trustees. (Lately noted.)

S. C., Varnville-Board of Education will erect high school; contract about Sept. 20.

Tenn., Morristown-Board of Education will erect high school; accommodate 600; manual training, gymnasium, library, study and recitation rooms; Clarence T. Jones, Archt., Chattanooga.

Tex., Decatur-Wise County Board of Education, W. B. Browning, Prest., Chicago, will erect 4-room brick building in District

Tex., Harrisburg-Harrisburg Independent School Dist. Trustees will erect building in Magnolia Park-Central Park section, and other improvements; \$100,000 bonds voted.

Tex., Hempstead-School Board, R. Mills, Prest., receives bids until Sept. 25 to erect two 2-room annexes to brick high school; plans and specifications at office Alfred C. Finn, Archt., Goggan Bldg., Houston. (Lately noted.)

Tex., Lampasas - School Board will erect school; \$40,000; 2 stories; semi-fireproof; L. Harrington Co., Archt., Houston Bldg., San Antonio; blds opened Sept. 20. (Lately noted.)

Tex., Mykawa-Trustees, School Dist. No. 45, plan school; \$10,000 bonds voted.

Tex., San Marcos-School Trustees, Dist. No. 2 will erect 2-room hollow tile school.

Tex., Tahoka-School Board will erect \$30 .-000 addition to high school.

Tex., Waco-Baylor University, Dr. S. P. Brooks, Prest., will erect \$150,000 library; 11 recitation rooms, 4 study rooms and reading rooms: fireproof: Birch D. Easterwood, Archt.

Tex., Wortham—School Board will erect \$40,000 building; 75x90 ft.; 2 stories and basement; ordinary construction; H. O. Blanding, Archt., Hardy-Peck Bldg., Corsibids opened Sept. 27. (Previously

Va., Lynchburg-City School Board, G. E. Vaughan, Chrmn. Comm., will erect junior

Va., New London-New London Academy receives bids at 928 Main St., Lynchburg, until Sept. 23, to erect 2-story agricultural

Va., South Boston-Board of Education plans \$90,000 high school, Peach Ave. and Hodge Grove.

W. Va., Parkersburg—City defeated \$650,-000 school building bonds. (Lately noted.)

Stores.

Fla., Bradentown-G. B. Wallace will erect 2-story brick and stone store and apartment building on Manatee Ave. near Pine St .: 128 ft. frontage.

Ga., Washington-G. A. Green will erect store and office building; brick and terra

Md., Nanticoke-H. James plans to rebuild store noted burned.

Tenn., Memphis-Towner & Co., J. B. Towner, Prest., 79-81 S. Second St., will repair building lately noted damaged by fire.

Tex., Dallas-Jno. C. Saner will expend \$10,000 to repair store, 1710-12 Commerce St., lately noted burned.

Tex., San Antonio-Thos. A. Troila will erect \$18,000 store and apartment building, Main Ave.

Tex., San., Antonio-Travis Investment Co. will erect 19 stores on Main Ave.; Herbert S. Green, Archt.: bids opened Sept. 9.

Va., Richmond-Pollard & Bagby will erect brick store buildings on N. Second St.; \$24,000.

W. Va. Charleston-Samuel M. Haddad will erect \$10,000 store, 424 Virginia St.

W. Va., Fairmont-Fred W. McIntyre will erect 3-story building on Meredit St.

W. Va., Kenova-Tri-State Grocery Co., D. C. Statem, Prest., will erect building to replace structure noted burned.

W. Va., Logan-White & Browning will rebuild structure lately noted burned.

W. Va., Welch-J. H. Mitchell will erect business and apartment building; 100x35 ft.

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Theaters

N. C. Fayetteville-State Theater, Daniel Allen, Prest., will erect 150,000 building; 70x190 ft.; fireproof; G. Lloyd Preacher & Co., Archts.

Warehouses.

Ark., Little Rock-Magnolia Petroleum Co., (main office Dallas, Tex.) will erect 1-story brick building; 710 W. 14th St.; \$19,000.

N. C., Fayetteville-North Carolina Com press & Warehouse Co. (O. J. McConnell, R. M. Vanstory, G. T. Brooks and others) will erect cotton warehouse; \$100,000; 100x450 ft. and covered platform; mill construction; 12,000 bales capacity. Address Hutton Scheffler, Archts., Citizens Bank Bld., Raleigh, (Lately noted.)

N. C., Weldon-Weldon Warehouse & Storage Corp., Geo. E. Ransom, Vice-Prest., will erect cotton storage warehouse; 1 story; \$100x300 ft.; brick and concrete; Hutton & Scheffler, Archts., Citizens Bank Bldg., Raleigh. (Lately noted.)

Tex., Dallas-Southwestern Paper Co., Geo. I. Tompkins, Mgr., will erect building on Lacy St., between Young and Wood Sts.; reinforced steel and concrete.

Waco-Texas Fireproof Storage Co. (A. B. Stringer, R. B. Albaugh and others) will erect 4-story concrete and brick storage building, Mary and 11th St.; \$100,000.

Camp Oliver; 10 cottages; 2 rooms and screened porch; O. L. Garl, Contr.

Fla., St. Petersburg-R. H. Sumner; \$16,500 dwelling, Beech Dr. and 16th Ave., North; 3 stories; brick; tile roof; sun parlor; Ed. gar Ferndon, Archt.; Franklin J. Mason.

Fla., West Palm Beach-G. W. Bingham; \$20,000 dwelling, Royal Palm Way; Italian design; Cooper C. Lightbown, Contr.

La., New Orleans-S. D. Siler; frame dn. plex dwelling, Henry Clay Ave. and Perrier St.; about \$10,000; J. A. Haase, Jr., Contr., 823 Gravier St.

La., New Orleans-Eugene J. LeBoeuf; \$10.400 dwelling, Seguin and Eliza Sts.; Jos. A. Lennox, Contr.

Md., Brunswick-Baltimore & Ohio R. R. Co., H. A. Lane, Ch. Engr., Baltimore; 8 two-story bunk houses; 22x62 ft.; also kitchen and dining room unit; Frainie Bros. & Haigley, Contrs., 19 W. Franklin St.; heating and plumbing, August Malthan, 2201 W. North Ave. ; both Baltimore ; also plans construction at other points as lately noted.

Mo., Baltimore-Everett Peters: 6 dwell. ings, 4932-42 Dinsmore Ave.; 2 stories; brick: 15x40.6 ft.; Carey roof; \$23,000; Stanislaus Russell, Archt., 11 E. Lexington St.; S. C. Pardee, Contr.

Mo., St. Louis-Dr. Chas. M. Bauman. Missouri State Life Ins. Co.; \$12,000 dwelling on Cambridge Ave., University Park; 2½ stories; 34x32 ft.; fireproof; Henry P. Hess, 4811 Cote Brilliante; Herman Roseman, Contr., 1415 Mallinckrodt St.

Mo., Kansas City-Chas. Hoffman, Contr. 3615 Baltimore Ave., is erecting \$25,000 dwell-62nd St. Terrace and Wornall Rd.: 48x36 ft.; 2 stories; brick; tile roof; Wm. P. Lodge, Archt., 1505 Commerce Bldg.

S. C., Gaffney-Gaffney Manufacturing Co.; 9 employees' dwellings in addition to 11 completed: 3 and 4 rooms; Weaver & McMillan, Contra

S. C., Gaffney-Limestone Mills, 13 em. ployees' dwellings being erected in addition to 2 completed; 4 rooms; Weaver & McMillan,

S. C., Greenville-Judson Mills, Ben E. Geer, Prest.; 130 employees' dwellings in connection with mill enlargement; 3 and 4 rooms; \$125,000; Minter Homes Co., Contr.

Tenn., Montlake-Signal Mountain Coal & Mining Co.; 30 portable dwellings; 4 and 5 rooms; Farrar Lumber Co., Contr., Dalton,

Tex., Dallas-Power Investment Co., J. H. Power, Prest.: 4 and 5-room frame cottages. 5203 Parry, 4614-18, 4702-6-10-14-18, 4806-10-12-14-18-22-26 Phillips Sts.; \$28,000; A. S. Childers, Contr.

Tex., San Antonio-R. B. Cherry, 942 W. Craigh St.; \$18,000 dwelling, Ellsmere Pl. near McCullough St.; 1 story; 2500 sq. ft.; brick and concrete; tile roof; oak, cement, tile and linotile floors; gas-steam heat; electric lights; Adams & Adams, Archts., Gibbs Bldg.; V. L. Rasmussen, Contr., 500 E. Cincinnati St.

Government and State.

Tex., Galveston-Warehouse-United States Lighthouse Service will erect warehouse, repair shop and pier west of dry dock, Pelican Spit; Chas. Clarke & Co., contrs. for driving and capping 150 creosote piles; lumber and piling furnished by dept.

Hospitals Sanitariums Etc.

Fla., Miami-City, Frank H. Wharton, Dwellings.

Ala., Birmingham—Board of Governors of Bros. contrs. for nurses' home at \$43,672;

BUILDING CONTRACTS AWARDED

Anartment Houses.

Fla., Miami-Frank Gallat; \$75,000 building, N. W. Fourth St.; 3 stories; 40x135 ft.; electric heat: electric and gas cooking: 24 suites, each with veranda; P. J. Davis, Contr.

Fla., Miami Beach - H. M. N. Muhle; \$100,000 building, Alton Rd. and 16th St.; 3 stories; 28 apartments; pebble dash; lobby 40x22 ft.; Hampton & Reinert, Archts.; George Jahn, Contr.; both Miami.

Fla., St. Petersburg-W. L. Carmack; \$40,-000 building, 4th Ave., North; 3 stories; 18 apartments: tile and stucco; heating plant; W. H. Carr, Archt.; Dillman & Wright,

Okla., Tulsa-Mrs. Mary J. Gavin; \$65,000 building, 802 S. Cheyenne Ave.; Tudor Gothic type; 3 stories and full basement; forced ventilation; combination boiler room, dance hall and bridge room in basement; J. J. Cooper Co., Archt.-Contr.

Association and Fraternal

Okla., Tulsa-Akdar Corp., A. C. Farmer, Prest.; \$600,000 Strine Temple, Fourth and Denver Sts.; site 140x200 ft.; 4 stories; fireproof; Persian architecture; brick and terra cotta; theater to seat 2000; Puckey & Jenkins. Archts., 6 N. Michigan Ave., Chicago: Sutherland Drilling & Contracting Co., Contr., St. Louis.

Bank and Office.

Miami-Dade County Security Co., Fla., J. I. Wilson, Prest.; remodel interior of building, N. E. First Ave.; \$28,000; marble floor and wainscoting on main floor; ornamental plaster ceiling; Womack & Sons, Atlanta, contrs. for building and fixtures.

Mo., Columbia-Dr. Dudley Robnett; \$10,-000 office building for physicians, S. 10th St.; Hatham & Kennedy, Contrs.

Mo., 'Kansas City-J. H. Huntzinger, 909 Baltimore St.; \$125,000 office building, 108 W. 10th St.; 7 stories; 30x142 ft.; reinforced concrete; gravel roof; concrete floors; hollow fireproof and interior tile; ornamental terra cotta: wire glass: mail chutes: steel sash and trim; steam heat; electric lights; electric elevator; Keene & Simpson, Archts., Reliance Bidg.; Pratt-Thompson Construction Co.,

N. C., Goldsboro-Wayne National Bank, W. E. Stroud, Vice-Prest.; \$165,000 bank and office building; 42x105 ft.; fireproof; steel; concrete, hardwood and marble floors; interior tils: safes: vaults: metal doors: wire glass; steel sash and trim; vault lights; ventilators; Alfred C. Bossom, Archt., 680 Fifth Ave., New York; Joe W. Stout & Co., Contrs., Sanford, N. C.; vaults and vault equipment

Tenn., Nashville-National Life & Accident

Insurance Co., C. A. Craig, Prest.; fireproof building; 73x150 ft.; steam heat; electric lights; elevators; ventilating system, C. Norton, Archt., Nashville; McKim, Meade & White, Asso. Archt., 101 Park Ave., New York; J. S. Nichol, Engr., Nashville; R. D. Kimball Co., New York, Mech. Engrs. Address Foster & Creighton Co., Contr., Nashville.

Va., Richmond-American National Bank, Oliver J. Sands, Prest.; \$42,800 building for Church Hill offices, 25th and Marshall Sts.; limestone : E. H. Armentrout, Contr. : contract about 30 days for 10-story building on Grace St. (Lately noted.)

Churches.

D. C., Washington-Cleveland Park Congregational Church, Wm. Knowles Cooper, Chr-mn., Bldg. Comm.; \$65,000 community house, 34th and Lowell Sts., N. W.; 2 stories; stone; Clarence L. Harding, Archt., 729 15th St.; W. C. & A. N. Miller, Contrs., Union Trust Bldg.; another unit later.

Md., Baltimore-North Avenue M. E. Church; \$115,000 addition to building, North Ave. and Caroline St.: 84x48 ft.: Sunday school building, gymnasium and social hall; Roy G. Pratt. 323 N. Charles St., Baltimore, and Heacock & Hokanson, Bailey Bldg., Philadelphia, Archts.; Chas. L. Stockhausen Co., Contr., Nat. Marine Bank Bldg., Baltimore.

Va., Roanoke-Melrose Episcopal Church will erect \$55,000 building, Melrose Ave. and 13th St., N. W.; contract let. Address The Pastor.

City and County.

Md., Baltimore-Stadium-Park Board, J. Cookman Boyd, Prest.; lumber for temporary seats and bathhouse at Venable Stadium to Wm. D. Gill & Son, Inc., 1311 Philpot St., for \$18,614.

Okla., Bartlesville-Convention Hall-City, A. F. McCaleb, Mayor; \$237,500 convention and community hall; auditorium to sent 2100; stage 60 ft. wide; Barnett, Haynes & Barnett, Archts., Century Bldg., St. Louis; Bellows Construction Co., Contr., Oklahoma City; plumbing, heating and ventilating, Sells-Orr Heating & Plumbing Co., Independence, Kans.; electrical work, Keener Electrical Co., Bartlesville.

Courthouses.

Ark., Mt. Ida-Montgomery County; \$40,-000 courthouse and jail: ordinary construction; Clyde A. Farrell, Archt.; Western Construction Co., Contr., 311 Reigler Bldg.; both Little Rock.

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F. H. Foster, contr. for operating building, \$27,400.

Miscellaneous.

D. C., Washington—Clubhouse—National Woman's Party, Alice Paul, Secy., 25 First St. N. E., Washington; remodel Watch Tower; \$100,000; Thos. Hastings, Archt., 52 Vanderbilt Ave, New York; Cauldwell, Wingate & Co., Contrs., 381 4th Ave., New York.

N. C., Charlotte—Funeral Home—Z. A. Hovis & Son; \$45,000 building, 508 N. Tryon St.; 40x90 ft.; 2 stories and basement; Gothic architecture; granite, limestone and pressed brick; electric elevator; W. H. Peeps, Archt.; Blythe & Isenhour, Contrs., Brevard Court.

S. C., Charleston — Pavilion — Charleston Rifle Club, A. J. W. Gorse, Chrmn., Bldg. Comm.; \$47,000 pavilion, Ashley Park; 2 stories; first floor for banquet hall; second for dancing; Simons-Mayrant Co., Contr.

Va., Hopewell—Clubhouse—Hopewell Athletic Club; clubhouse; 60x100 ft.; brick and frame; Pete Nelson, Contr.

Railway Stations, Sheds, Etc.

Va., Ashland—Richmond, Fredericksburg & Potomac R. R., W. D. Duke, Gen. Mgr., Richmond; depot; W. D. Lee, Archt.; Aubrey Hunt, Contr., both Richmond.

Schools.

Ala., Ashville—Board of Education will erect building; rock; Frank Coupland, Contr.
Ala., Fairfield—Board of Education; \$52,-

Ala., Fairfield—Board of Education; \$52,000 school; 1 and 2 stories; 20 rooms; hollow tile and brick veneer; composition shingle and built-up roof; pine floors; one-pipe steam heat, \$5000; electric lights and electric time clock system; Wm. L. Denham, Archt., Empire Bldg., Birmingham; W. L. Coston, Contr., Hueytown.

Ala., Patton—Board of Education; remodel school; \$14,000; W. C. Buck, Contr., Florence.

Ala., Prichard—Mobile County School Commrs., S. S. Murphy, Supt. of Schools, Mobile; \$35,000 school; 1 story; brick; J. Platt Roberts, Archt., City Bank Bidg., Mobile; H. F. Horne & Sons, Contrs., Greensboro, Ala.

La., Lake Charles—Calcasieu Parish School Board; school building; Chas. Law, Coutr., Beaumont. Tex.

Md., Baltimore—Board of Awards, Mayor Wm. F. Broening, Prest.; five part-metal portable schools; \$15,182; Maryland Metal Bldg. Co., Contr., 801 Munsey Bldg.

Md., Baltimore—Gilman Country School, Roland and Belvedere Aves.; 2½-story brick dwelling; \$12,000; 26.10x58.3 ft.; 16 rooms; steam heat; Parker, Thomas & Rice, Archts., Union Trust Bldg.; R. B. Mason, Contr., 308 W. Madison St.

Miss., Rawles Springs—School Trustees; brick building; R. M. Hendrix, Contr., Hattiesburg.

Mo., Savannah—School Board will erect \$15,000 gymnasium at high school; Fred Clark, Contr.

Mo., Wellsville—Sacred Heart Catholic School; 2½-story building; stone; Jno. Hilkemeyer, Contr., Martinsburg.

N. C., Raleigh—Raleigh Township School Comm., S. B. Underwood, Supt. of Schools, 18½ W. Martin St.; Thompson Elementary School; \$105,864; 160x130 ft.; T shape; 2 stories; concrete, steel, brick, stone and hollow fireproof tile; Barrett roof; maple, tile concrete and composition floors; ornamental terra cotta; steel sash and trim; 12 classrooms, auditorium and gymnasium; C. Gadsden Sayre, Archt., Allen Bldg., Raleigh, and N. Main St., Anderson, S. C.; C. V. York Construction Co., Contr., Raleigh.

S. C., Charleston—City Board of Public School Commrs., A. Burnett Rhett, Supt.; \$180,000 vocational school on Chisholm St.; 3 stories; concrete frame; tile and brick walls; Burrett roof; pine, concrete and terrazzo floors; hollow fireproof and interior tile; ornamental terra cotta; metal doors; steel sash and trim; Warren Webster heating system; D. B. Hyer, Archt., Peoples Bidg.; Charleston Engineering & Contracting Co., Contr.; A. J. Riley, heating, \$10,500.

S. C., Easley—School Board; \$30,000 high school annex; ordinary construction; Jas. C. Hemphill, Archt., Greenwood; R. G. Sheck, Contr., Easley.

S. C., Lancaster—Board of School Trustees, Leroy Springs, Chrmn.; graded school for mill village, building for negro pupils and high school; \$158,000; 12, 13 and 14 rooms respectively; semi-fireproof; Barrett roofs; rift pine and concrete floors; hollow fireproof and interior tile; metal doors; ventilators; steel sash and trim; steam heat; J. Carroll Johnson, Archt., 615 Richland St., Columbia; Haynesworth & Lawton, Contrs., Flqrence.

Tenn., Cleveland—Bradley County School Board; 3-room brick veneer building in Michigan Ave., community; contract let.

Va., Norfolk—City School Board, Dr. Chas. R. Grandy, Chrmn.; \$140,980 annex to J. E. B. Stuart School; Peebles & Ferguson, Archts.; Miller Engineering Co., Contr.; also \$67,000 annex to Patrick Henry School; B. Speigal, Archt.; R. R. Richardson & Co., Contrs.

Stores.

Ark., Camden—M. H. Schniederson; 2-story concrete building, E. Washington St.; J. T. Mendenhall, Contr.

Fla., St. Petersburg—Hewitt Plumbing Co., C. W. Hewitt, Prest., 316 Central Ave.; \$16,-000 building, 9th St. and First Ave.; also \$10,000 building, Central Ave. and 7th St.;

both buildings, 1 story; tile; stucco finish; 6 stores each; Geo. Feltham, Archt.; Moon & Hanson, Contrs. for former; Breeding & McBath. for latter.

La., New Orleans.—M. Augustin Paint & Glass Co., 614 Baronne St.; repair store lately noted damaged by fire; \$19,000; Favrot Livaudais, Archts., Hibernia Bldg.; Richard McCarthy, Contrs., Canal Commercial Bldg.

La.. New Orleans—E. G. Ecuyer; repair building at 1241 Esplanade St. damaged by fire; Paul Andry, Archt., 840 Gravier St.; Richard McCarthy, Contr., Canal Commercial Bidg.

La., New Orleans—Victor Masson; \$14,400 frame and stucco drug store and residence, Spain and Burgundy Sts.; T. L. Perrier, Archt., Marine Bank Bldg.; L. J. Woodworth, Contr., 337 Baronne St.

La., New Orleans—M. J. Ward, Jr.; \$13,-900 store and apartment building, Gayoso and Marshall Sts.; Nicholas Graffagmino, Contr.

N. C., Wilmington—Breadfoot Iron Works; \$75,000 building; 2 stories; reinforced concrete; Walter Clark, Contr.

Tex., Lubbock-W. A. Myrick, Dallas; brick business building, 13th St. and Avenue J; contract let.

Va., Richmond—J. Bernard Hobbs, 5 W. Broad St.; remodel and erect additions to residence, S W. Grace St. for florist shop; \$15,000; install glass front, erect glass show house, 50x20 ft. and garage, 25x23 ft.; Marcellus E, Wright, Archt.; Wise Granite & Construction Co., Contr., both 1001 E. Main St.

Warehouses.

La.. New Orleans—L. Feibleman & Co.; reinforce and remodel 4-story warehouse, 311-16 Magazine St.; 50x200 ft.; \$70,000; Moise H. Goldstein, Archt., Hibernia Bank Bldg.; O. M. Gwinn Constr. Co., Contr., Canal Commercial Bldg.

N. C., Winston-Salem—Co-operative Marketing Assn., Hugh Brown and others; tobacco warehouse and redrying plant; contract let.

Tenn., Knoxville—Jas. G. Sterchi; \$50,000 warehouse and manufacturing building, Jackson Ave., between State and Central Sts.; 3 stories and basement; 100 ft. square; brick and mill construction; electric elevators; steam heat; R. F. Graf & Son, Archts.; Harry A. Gevin, Contr.

Tex., Galveston—Galveston Cotton Compress & Warehouse Co., W. L. Moody, Jr., Prest.; \$60,000 addition to warehouse, 48th St. and Avenue J; 50x1050 ft.; 20,000 bales capacity; M. C. Bowden, Contr.

Va., Pulaski—R. R. Moore & Co.; \$25,000 to \$30,000 warehouse; 50x100 ft.; 3 stories and basement; mill construction; Hoback & Painter, Contrs.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Amusement Park Equipment.—Mercer Park Assn., H. A. Hughes, Mgr., Box 848, Bluefield, W. Va.—Data and prices on mchy. and equipment for roller coaster, etc. for amusement park.

Asbestos.—P. S. Campbell, Box 144, Miami, Fla.—To purchase asbestos or similar fire-proof material.

Asphalt Paving Plant.—Geo. K. Mack, 301 City Hall, Richmond, Va.—Asphalt paving plant, for street paving.

Bakelite.—P. S. Campbell, Box 144, Miami, Fla.—To purchase bakelite.

Boiler and Engine.—Carter's Production

Works, (Mchy. Dealers), Oliver Carter, Mgr., 210 S. Water St., Wilmington, N. C.—Prices on new or second-hand portable boiler and engine on wheels on skids, about 25 H.P. prefer internal fired Scotch Marine type boiler; give full particulars.

Bridge Construction.—Grady County Commrs., Chickasha, Okla.—Bids opened Sept. 18 for road embankment to bridge No. 90, between Sections 28-29, T 7 N. R. 7W; 2000 cu. yds. embankment; Pearl A. Little, County Engr.

Bridge Construction.—State Highway Comsn., Frankfort, Ky.—Bids until Sept. 27 to build bridge over Rolling Fork on Lebanon-Campbellsville road; 150-ft. span; Joe S. Boggs, State Highway Engr., Frankfort.

Bridge Construction.—Louisiana Highway Comsn., Raymond Bldg., Baton Rouge, La.— Bids until Oct. 2 for concrete bridge over Doreheat Bayou, Webster Parish; 63,948 lbs. steel; 385.88 cu. yds. concrete; plans, etc. on file; J. M. Fourmy, State Highway Engr.

Bridge Construction.—State Highway Dept, Jefferson City, Mo.—Bids opened Sept. 15 for following bridges on State road from Buffalo northwestward and northeastward.

Sta. 178 plus 35; 30-ft. reinforced concrete

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deck girder span; 2 mass concrete abutments; 18-ft. roadway.

Sta. 203 plus 65; 20-ft. reinforced concrete slab span; 2 reinforced concrete abutments; 18-ft. roadway; State Aid Project No. 2183; H. P. Mobberly, Div. Engr. Woodruff Bldg., Springfield. Mo.

Bridge Construction—Noxubee County Commrs., Jno. A. Tyson, Clk., Macon, Miss.— Bids until Oct. 2 for following wooden bridges:

Over Jim Creek, on Henley or Caddow road on County line.

Over Slough on Macon and Louisville road, 8 mi. west of Macon; plans, etc., on

Bridge Construction.—Duval County Commrs., Charles A. Clark, Chrmn., Jacksonville, Fla.—Bids until Sept. 22 for wooden bridge over Mile Branch on Middleburg road; plans, etc. from Frank Brown, Clk.

Bridge Construction.—Board of Road Commrs., Mitchell County, and County Commrs. of Yancey County, Spruce Pine, N. C.—Bids until Sept. 28 for 2 steel bridges, at Huntdale, N. C. and Boonford, N. C.; plans, etc. from W. F. Denean, Civil Engr., Bakersville, N. C.

Bridge Repairing.—Elmore County Commrs. Court, L. C. Smith, Judge, Wetumpka, Ala.—Bids until Oct. 9 for re-flooring, scrapping and painting Coosa river bridge; plans on file and with State Highway Dept., Montgomery, Ala.

Canning Machinery.—Everglades Fisheries Co. Okeechobee, Fla.—To correspond with mfrs. of canning mchy.

Cars (Cane).—Florida Sugar & Food Products Co., E. T. Anderson, Secy., 110 S. Dearborn St., Chicago, III.—Thirty to forty of 3 to 4 ton standard gauge cane cars also two light gasoline locomotives.

Cement.—Grover C. Miller, Clk., Luray, Va.—Cement for small bridge.

Cement (Portland).—Mississippi River Comsn., 1st and 2nd Dists., Customhouse, Memphis, Tenn.—Bids until Sept. 27 to furnish and deliver 24,000 sacks of Portland cement; further information on application.

Channelling Machine.—Appalachin Marble Co., Knoxville, Tenn.—To purchase Sullivan single head channelling machine.

Chemical Equipment.—Consolidated Products Co., 15 Park Row, New York City.— To purchase miscellaneous chemical equipment including filter presses, dryers, etc.

Chutes and Bins.—City of Asheville, N. C., J. H. Schoepf, Pur. Agt.—Bids opened Sept. 16 for installation of chutes and bins in municipal incinerator; plans on file with City Engr.

Cooking Equipment (Electric). — Treasury Dept., Supvg. Archt.'s Office, Washington, D. C.—Bids until Oct. 9 to furnish and deliver electric cooking equipment for U. S. Veterans' Hospital, Jefferson Barracks, St. Louis, Mo.; specifications on file.

Compressor (Air).—R. P. Johnson (Mchy. Dealers). Wytheville, Va.—Dealers prices on second hand belt driven air compressor, 100 lbs. pressure, 150 cu. ft. per. min. canacity.

Concrete Culvert Machinery.—Robert Croom, Maxton, N. C.—Date and prices on mchy, for making concrete culverts.

Concrete Paving Reinforcing.—Grover C. Miller, Luray, Va.—Concrete paving reinforcing, for loose stone macadam roads.

Crane.—Sabel & Rothschild, (Mchy. Dealers) 826 W. Bay St., Jacksonville, Fla.—10 to 15 ton crane with 50 ft. boom, first-class condition.

Culverts.—Grover C. Miller, Luray, Va.—Cuverts for road building.

Derrick.—Florida Sugar & Food Products Co., E. T. Anderson, Secy., 110 S. Dearborn St., Chicago, Ill.—50 ft. cane and bare derrick.

Drainage.—Jackson Township Drainage Dist., Fay H. Castell, Secy., Ravenwood, Mo.—Bids opened Sept. 21 to construct main ditch and 8 laterals, 517,700 cu. yds.; clearing of 600 acres; plans on file or with Clark E. Jacoby Engineering Co., 527 Shukert Bldg., Kansas City, Mo.

Drainage.—Commrs. of Cross County Drainage Dist. No. 3, Wynne, Ark.—Bids opened Sept. 22 to construct about 53 mi. ditches ranging in size from 6 to 30 ft.; 1.438,000 eu. yds. excavation; clearing 674 acres clearing; laying about 3000 lin. ft. pipe; W. S. Newsom, Engr., Wynne.

Drainage.—Kingstree Swamp Drainage Dist. Commrs., W. E. Nesmith, Chrmn., Kingstree, S. C.—Bids until Oct. 4 to construct drainage canals in district; 250,000 cu. yds. excavation; plans with P. G. Gourdin, Engr., Kingstree.

Dredging.—U. S. Engr. Office, Room 710, Army Bldg., 39 Whitehall St., New York City.—Bids until Oct. 5 for dredging and rock removal in East River, N. Y.; further information on application.

Dry Kiln.—R. P. Johnson (Mchy. Dealers) Wytheville, Va.—Dealers prices on secondhand 40000 ft. capacity dry kiln outfit complete.

Elevators.—Treasury Dept., Supvg. Archt.'s Office, Washington, D. C.—Bids until Oct. 10 to install complete 4 full magnet control electric elevators for U. S. Veterans Hospital, Jefferson Barracks, St. Louis, Mo.; plans on file.

Engine.—Wilson-Hock Co. (Mchy. Dealers) City Point, Va.—Dealers prices on 50 to 100 H. P. Corless engine; slightly used preferred.

Filtration Plant.-City of Greensboro, N. P. C. Painter, Mgr.-Bids until October 10 to construct filtration plant and appurtenances, works consists of construction and equipment of 6,000,000 gal, filter plant, construction of coagulation basin with dividing wall, capacity of 1,148,000 gals. and conof mixing chamber, struction principal quantities are the following: 8000 cu. yds. of earth excavation; 1900 cu. yds. of concrete, 225,000 lbs. of reinforcing steel; equipment consists of six 1,000,000,000 gal. filter units, 80,000 brick laid in filter house walls, steel wash water tank of 70,000 gals, capacity. 100 gpm motor operated pump; piping valves and miscellaneous items; plans on file at office of City Mgr. or office of Ludlow Engineers. Winston-Salem.

Grinder (Meat, Electric). — Logeman's Market, Atchison, Kansas.—Electric meat grinder.

Hardware.—Cox Brothers Sons & Co., Westunion, W. Va.—Catalogs and prices of both shelf and heavy hardware.

Ice Machine.—Amedee Girardi, Alep, Syria. To purchase small ice machine; quote prices cif Tripolis. Syria.

Incinerator.—Lon H. Barringer, City Mgr., Charleston, W. Va.—Bids until Oct. 6 to confstruct incinerator plant, including refuse incinerator plant complete, tested and accepted ready for operation, and all appurtenances; 24 hr. capacity of 50 tons specifications on file.

Landscape Architects.—A. J. Sproles, Supt., Greenwood Water and Electric Light Plant, Greenwood, S. C.—Quotations from landscape architects in connection with develop ment of 80 acre tract of woodland and meadow surrounding pumping station into

Lathe.—Beckerley & Trusler (Mchy. Dealers) 306 Stewart Bidg., Baltimore, Mc.—Prices on 20-in. x 8-ft. metal lathe; good condition; state time of delivery.

Lighting Fixtures.—Treasury Dept., Supvr. Archt's, office, Washington, D. C.—Bids until Oct. 10 to furnish and install lighting fartures in U. S. Veterans Hospital at Jefferson Barracks, St. Louis, Mo.; plans on file.

Lime (Caustie).—Board of Awards, Richard Gwinn, Register, City Hall, Baltimore, Md.—Bids until Sept. 27 to furnish and deliver 1500 tons caustic lime to water dept.; plans obtainable from Wm. A. Megraw, Water Engr., City Hall.

Locomotives.—Florida Sugar & Food Products Co., E. T. Anderson, Secy., 110 8. Dearborn St., Chicago, Ill.—2 light gasoline locomotives.

Machine Tools.—Great Eastern Tobacco Co., Box 2050, 14-A Clive Row, Calcutta, India.—To correspond with mfrs. of mehy, for making appliances suitable for cleaning briar wood pipes.

Matcher.— R. P. Johnson (Mchy. Dealers), Wytheville. Va.—Dealers prices on good second-hand end matcher for hardwood flooring.

Natural Gas Distribution System .- City of Alexandria, La., V. M. Aske, Secy.-Treas.-Bids until Oct. 2 for furnishing the following materials and construction complete and ready for operation of a natural gas distributing system: approx. quantities of material: 732 tons 4-in. b. and s. c. i., 519 tons 6-in. b. and s. c. i., 225 tons 8-in. b. and s. c. i., 166 tons 10-in. b. and s. c. i., 21 tons specials— $12\frac{1}{2}$ tons drip pots, 130 4" hub end gate valves, 60 6" hub end gate valves; 25 8" hub end gate valves; 15 10" hub end gate valves; 350 service boxes; 55,000 pounds lead woll; 3000 pounds untarred jtue; 6000 lineal feet 4" gen. w. i. pipe, plain ends; 8200 lineal feet 6" gen. w. i. pipe, plain ends welcht gen. w. i. pipe, plain ends, weight 28.55; 5700 lineal feet 10" gen. w. 1. plpe, plain ends, weight 34.24; 4600 lineal feet 12" gen. w. i. pipe, plain ends, weight 49.56; 20 flanged gate valves and companion flanges D and F; 20 6" banged gate valves and companion flanges D and F; 12 8" flanged gate valves and companion flanges D and F; 4 10" flanged gate valves and companion flanges D and F; 10 12" flanged gate valves and companion flanges D and F; 5 4" pressre regulators; 3 6" pressure regulators; 3 8" pressure regulators; 5 4" orific meters; 3 6" orific meters; 4 8" orific meters; 1 meter tester.

Alternate prices will be considered on standard full weight steel pipe in lieu of wrought iron pipe, the 8, 10, and 12-inch weighing as follows: 28.55, 40.83, 49.56; for laying the following cast iron pipe; 77.836 lin. ft. 4-in.; 44.000 lin. ft. 6-in.; 13.370 lin. ft. 8-in.; 6826 lin. ft. 10-in.; including the placing of all valves, specials, etc.

Welding and laying the following wrought iron or steel pipe: 20,000 lin. ft. 2-in.; 6000 lin. ft. 4-in.; 8200 lin. ft. 6-in.; 8100 lin. ft. 8-in.; 5700 lin. ft. 10-in.; 4600 lin. ft. 12-in.; including the placing of all valves, specials.

For further information apply to W. H. Sylvester, city engineer, or Secy.-Treas.

Paving.—Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.—Bids until Sept. 27 to grade and pave streets in Conts. Nos. 225-OCNA and 226-NA; sheet asphalt on concrete base; 20,870 sq. yds. sheet asphalt; 550 sq. yds. vitrified block; plans, etc., from Paving Comsn., 214 E. Lexington St.; H. G. Perring, Ch. Engr.

Paving .- City Commrs., A. D. Newman,

September 21, 1922.

Engr. (Lately noted.)

son, City Recorder.

& Sudlow, Engrs.

Commr. of Streets and Sewers, Huntington,

W. Va .- Bids until Sept. 28 to grade, curb

and pave Adams Ave. from Chapman's Cross-

ing to Four Pole Bridge, 7th St. from 4th to Virginia Aves. and 8½ Alley from 6th to

7th Sts.; plans, etc. from A. B. Maupin, City

Paving .- R. P. Knight, Mayor, Athens,

Tenn.—Bids until Sept. 25 for 28,317 sq. yds. paving in Improvement Dists. Nos. 5 to 8, Comprising Jackson, Washington, Ingleside

and Madison Sts.; 19,764 lin. ft. curb; 133

catch basins; plans, etc. from Fred Stepsen-

Paving .- Henry Busch, Clk.-Treas., Aiken,

S. C .- Bids until Sept. 25 to pave Park Ave.

from Short St. to Southern Ry. passenger depot, and square in front of Post Office at

Park Ave. and Laurens St.; 18,000 sq. yds.

concrete pavement; 7000 lin. ft. concrete

curbs or headers; plans, etc., from Ashhurst

Paving .- City, John H. Zirkle, City Record-

er, Martinsburg, W. Va .- Bids until Oct. 14

to lay concrete sidewalk and curb on College

Paving .- E. E. McAdams, City Mgr., Bryan,

Taying.—E. g., accaumins, City Mgr., Bryan, Tex.—Bids until Sept. 25 for street im-provements; 42,000 sq. yds. 5-in. concrete base with 2 in. asphalt surface, or 6-in. con-crete pavement; 23,000 lin. ft. combined curb

and gutter; reset 3000 lin. ft. curb and gut-

ter: 1200 lin. ft. gutter; also for seal coating

Main and several intersecting streets; 26,000

sq. yds.; plans, etc. on file; Tyler Haswell,

Paving.—City, Board of Public Service, St. Louis, Mo.—Bids until Oct. 3 to reconstruct

Broadway from Chippewa to Arsenal Sts.;

St. between John and Stephen Sts.

tion into ly. Deale, Md.

ds until ting fix-Tefferson ile.

Richard e. Md deliver .; plans d Prod-

ne loco Tobacco alcutta, cleaning

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Dealers). n good rdwood -City of Freas .llowing te and

as disof ma-19 tons and s 21 tons ub end : 25 8 d gate ds lead lineal

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W. H. Broen-Sept. Nos. B CON-

phalt; from H. G.

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2-inch 6: for 77.826

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Paving .- City Comsn., Chas. H. Brown,

plans, etc., on file.

Mayor, Tampa, Fla.—Bids opened Sept. 19 to pave Main St. from Michigan Ave. to Plymouth St.; 6830 sq. yds. 2½-in. asphalt blocks; 4600 lin. ft. concrete curb; Taliaferro St. from Michigan Ave. to Bryan St.; 1450 sq. yds. asphalt blocks; 940 lin. ft. concrete curb; plans, etc. from City Engr.

Paving .- Comsn. Council, V. M. Aske, Secy. Treas., Alexandria, La.—Bids until Oct. 2 to pave 7th St.; verticle fibre brick; 15,300 sq. yds. brick paving on 5-in concrete base; 43,500 lbs. reinforcing steel; plans, etc. from W. H. Sylvester, City Engr.

Paving Materials.-Geo. K. Mack, 301 City Hall, Richmond, Va .- Paving materials, including asphalt, cement, granite block, road hinders

Pipe (Cast Iron) .- Board of Public Service. Room 208, City Hall, St. Louis, Mo.-Bids until Oct. 3 to furnish and deliver 3387 tons coated cast iron water pipe; specifications obtainable at office of Water Commr., 312 City Hall.

Planer.—Beckerley & Trusler, (Mchy. Dealers) 306 Stewart Bldg., Baltimore, Md.— Prices on 8-ft. x 24-in. wood planer; standard make; good condition; state time of delivery.

Plumbing.—Board of Awards, Mayor Wm. F. Broening, Prest., Baltimore, Md.—Duplicate bids until Sept 20 at office Richard Gwinn, City Hall, for plumbing and public baths in Curtis Bay School, Church St. and Fairview Ave.; plans and specifications at office J. F. Crowther, Inspector of Bldgs., City Hall.

Press.—The Globe, Wellsville, Kansas.— To purchase 10x15 job press for power equipment.

Pressing Machine (Steam).—John Schiebal, 309 Water St., Joplin. Mo.—Steam pressing machine.

Co., E. T. Anderson, Secy., 110 S. Dearborn St., Chicago, Ill.—Prices on 1½ mi. of 20 to 30 lbs. rails for permanent construction and some for portable use.

Rails (Relaying), etc .- White Oak Corp. (Mchy. Dealers) Knoxville, Tenn.-200 tons of 30 lb. relaying rails, also bolts, angles and spikes weighed in; price per gross tou.

Railroad Materials .- City of Tampa, Fla., Wm. E. Duncan, City Clk.-Bids open to furnish following railroad materials, delivery f.o.b. Tampa; 47 tons steel nails new or second-hand, 67½ to 70 lbs. per lin. yds.; 300 joint fastings; 43 kegs standard rail spikes; 1000 cross ties 7 ft. x 9-in. and 8 ft. x 6-in.; plans with City Engr.

Reservoir-City of Laurel, Md., Charles E. Little, Mayor-Bids until Sept. 27 for draining Laurel reservoir; information upon application.

Road Binders.-See Paving Materials.

Road Construction .- State Highway Dept., Montgomery, Ala.-Bids until Sept. 26 to grade, drain and surface 6.87 mi. Decatur-Moulton road; bituminous macadam; \$194,-000; A. P. Hudson, Div. Engr., Decatur.

Road Construction. - Oktibbeha County Highway Comsn., Districts Nos. 1 and 4, J. R. Lang, Chancery Clerk, Starkville, Miss.—Bids until Oct. 2 for 3 roads in District No. 4: Sturgis-West Point; Maben and Bradley; and Double Spring road in District No. 1; plans, etc., on file.

Road Construction .- Lonoke County Commrs. Road Improvement District No. 13, T. M. Fletcher, Secy., Lonoke, Ark—Bids opened Sept. 18 for 7 mi. gravel road in District; plans, etc., from County Clerk, Lonoke, and State Highway Commr., Little Rock, Ark.

Road Construction .- Pasco County, Highlands Special Road and Bridge District, A. J. Burnside, Clk., Dade City, Fla.-Bids until Oct. 16 for 100 mi. road improvements; J. W. Turner, Engr., Lakeland, Fla.

Road Construction.—Grundy County Clk., Trenton, Mo.—Bids until Sept. 22 to improve State road, including grading and construc-ing culverts; Project No. 20,170.

Road Construction.—Hinds County Board of Supvrs., Jackson, Miss.—Bids until Oct. 7 for road building on Sections B. and C, or State Trunk road between Jackson and Clinton; 3832 sq. yds. concrete base; 3999 sq. yds. rock or sheet asphalt, or asphaltic concrete paving; plans, etc. from H. C. Dietzer, State Highway Engr., Jackson, and Chancery

Road Construction .- State Highway Comsn., Frankfort, Ky.-Bids until Sept. 27 for following:

Hardin County, 13.9 mi. macadam road from Camp Knox to Elizabethtown.

Trigg County, 2.9 mi. macadam road to complete federal aid highways to county. Carter County, grade and drain 9.7 mi.

from Rowan County line to Olive Hill.

Boone County, 5.1 mi. concrete, rock asphalt or bituminous concrete road from Richmond to Florence.

Powell County, grade and drain 8.1 mi. road from Bowen to Wolfe County line.

Perry County, grade and drain 2.1 mi. road from Hazard to Christopher.

Daviess County, grade and drain 4.2 mi. road from Stanley to Henderson County line. Green County, grade and drain 5.4 mi. road from Greensburg to Summersville.

Carter County, 1.1 mi. macadam road from Kilgore to Boyd County line.

Knox and Bell Counties, 12.8 mi. concrete, asphalt or bituminous concrete road from Barbourville toward Pineville.

Rails.—Florida Sugar & Food Products road from Powell County line to Compton

Station; Joe S. Boggs, State Highway Engr., Frankfort.

Road Construction .- State Highway Comsn., Richmond. Va.-Bids opened Sept. 19 for following projects:

125-A, Route 6; 4.75 ml. road from Fairfax-Loudon County line to Project 125-B, in Loudon County; bituminous macadam; alternate bids requested using concrete pavement.

160, Route 5; 4.6 mi. road from Suffolk, Isle of Wight County; one course concrete, 168, Route 6; 5.01 mi. road from Chantilly to Loudon County line, Fairfax County; bituminous macadam; alternate bids using concrete payement.

173, Route 1; 6.43 mi. road between Falling reek and Dutch Gap road, Chesterfield County; concrete.

202 Route 9; 6.27 mi. road between Louise and Cobham, Louisa County; one course concrete; alternate bids using bituminous macadam surfacing; plans, etc., on file Dist. Engrs.; for Projects 125-A and 168, at Manassas, Va.; 160 at Suffolk; 173 and 202 at Richmond.

Road and Bridge Construction. - State Highway Dept., Montgomery, Ala.-Bids until Oct. 6 for 1.13 mi. road from Livingston; also bridge over Sucarnochee River; Sumter County; 12,000 sq. yds. 2½-inch bituminous macadam penetration method; 10,493 lbs. reinforcing steel; steel span; concrete sub-floor; plans, etc., from W. S. Keller, State Highway Engr., Montgomery, or Div. Engr., Selma, Ala.

Rock Crusher.-American Metallic Packing Co., Lexington, Ky.—Gates No. 7½ K used crusher; used rock crusher revolving screen 48x18 ft.; good condition.

Saw Mill Equipment.—Carter's Production Works (Mchy. Dealers), Oliver Carter, Mgr., 210 S. Water St., Wilmington, N. C.—Prices on new or second-hand saw mill and saw mill equipment.; give full particulars.

Saws (Rip and Cut Off).—Marsalis Lumber Co., 1021 N. Marsalis Ave., Dallas, Tex.
—Prices on small rip saw and cut off saw.

Screw Machine.—Joye Jewelry Co., C. M. Joye, Prest., Rock Hill, S. C.—Small screw machine, second-hand.

Sewer Construction—City of Alexandra, La., V. M. Ake, Secy.-Treas.—Bids until Oct. 2 for furnishing material and constructing storm sewer on Seventh St., consisting of approx. quantities; 3483 cu. yds. concrete; 389,700 lbs. reinforcing; 9000 cu. yds. excavation; information on application to W H. Sylvester, Engr.

Sewer Construction—City of Gadsden, Ala., Ernest Smith, Clk.—Bids opened Sept. 18 to construct approx. 18-mi. sanitary sewer, requiring 54, 150 ft. of 6-in., 31,420 ft. of 8-in., 7495 ft. of 10-in., 2030 ft. of 12-in., 3100 ft. of 15-in. T. C. pipe, 170 manholes, 2166 6-in. by 4-in. Y's, 1256 8-in. by 4-in. Y's, 300 10-in. by 4-in. Y's, 80 12-in. by 4-in. Y's; plans and specifications on file at office of City Engr., City Hall.

Sewer Construction.—Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.— Bids until Sept. 27 for construction of storm water and sanitary sewers in neighborhood of Calvert and 34th Sts., comprising approx. 825 lin. ft. 72" concrete section sewer, 713 lin. ft. 15" vitrified pipe sewer, 61 lin. ft. brick masonry, and other work incidental to the above; plans and specifications on file at office of A. E. Christhilf, Highways Engr., Room 8, City Hall.

Sewer Construction.—City of Paintsville. Ky., R. C. Thomas, Mayor.—Bids until Oct. 3 for construction of 2 systems of sewers and appurtenances, vitrified tile or concrete pipe; approximate quantities as follows: First or Margaret Heights System; 4356 ft.

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of pipe from 24-in. to 6-in. in diameter, 9 manholes, 4 lampholes,

Second or Frank and Preston Sts. System; 2306 ft. of pipe from 15-in. to 6-in. in diameter, 4 manholes, 2 lampholes; plans and specifications on file at office of G. M. Stafford, City Clk.

Sewer Construction .- City, Commrs of Sewage, Louisville, Ky .- Bids opened Sept. 21 for sewer construction in Bardstown Road Dist, trunk sewer and drain Section B and C and Spring drive-West-sewer and drain; approx. quantities: for drains 790 ft. of 87-in. 625 ft. of 63-in., 320 ft. of 60-in., 375 ft. of 21 in., 285 ft. of 18-in. and 420 ft. of 12-in.; for sewers 790 ft. of 18-in., 950 ft. of 15-in., and 1085 ft. of 8-in.; information on application to 417 W. Main St.; J. B. F. Breed, Ch. Engr.

Sewer Construction .- City of Ft. Worth, Texas, E. R. Cockrell, Mayor—Bids until Sept. 26 for furnishing necessary materials, equipment and labor for constructing sewage disposal plant; plans, etc. on file at office of Dudley L. Lewis, City Engr., John B. Hawley, 403 Cotton Exchange Bldg., Ft. Worth, E. E. Sands, Mason Bldg., Houston, Tex.

Shafting and Hangers .- Joye Jewelry Co., C. M. Joye, Prest., Rock Hill, S. C .- Shafting and hangers.

Shover (Portable, Steam) .- Robert Croom, Maxton, N. C .- Small portable steam shovel, either new or slightly used.

Stationery .- Robt. E. Lee, Prest., Lafayette Mutual Life Insurance Co., Lumberton, N. C.-Industrial insurance blanks, books. etc.

Stone Crusher .- Mercer Park Assn., H. A. Hughes, Mgr., Box 848, Bluefield, W. Va .-Small stone crusher.

Tables and Cases .- Board of Awards, Richard Gwinn, City Register, Baltimore, Md.-Bids until Sept. 27 to furnish domestic science tables and cases; specifications obtainable from School Commrs., Madison and Lafayette Aves.

Tools (Sidewalk) .- S. E. Couch, 207 S. Foster St., Dothan, Ala.-To correspond with mfrs. of long handle cement sidewalk tools.

Water and Sewer System.—City of Elkins, N. C., J. W. Ring, Mayor—Bids until Sept. 20 for placing approx, 4100 ft. water main and 3200 ft. water ssewer; information on application to Pegram & Roberts, Engrs.

Water Works and Sewer System.—City of Covington, La., Robert W. Badon, Mayor— Bids until Oct. 10 for furnishing machy, materials and equipment and constructing water works and sewerage system; work includes furnishing cast iron and galvanized pipe and fittings, fire hydrants, valves and boxes, motor driven pumping sets, reservoir, elevated tanks, pump house, sewer pipe and branches, sewage pumps and constructing systems complete; plans on file at office of Mayor and at office of Kramer Engineering Co., Magnolia, Miss.

Wire Cable.-The Harford Tale Co., 2222 Mount Holly St., Baltimore, Md.-In market for 1600 ft. 1/2-in. and 1000 ft. 1/8 steel wire cable for cable-way hoist.

Woodworking Machinery.-William Roscoe Shook, Box 625, Canton, N. C .- To correspond with mfrs. of mchy, to make wood plugs for paper rolls; data and prices.

Financial News

New Financial Corporations.

D. C., Washington - Mortgage Finance

Bradford, C. Ernest Parker, Carl S. Cummings.

D. C., Washington-Finance & Credit Co. \$500,000 capital, incptd, with James T. Lloyd, Prest., and Frank E. Chiselli, Treas.

Fla., Clewiston-The First Bank of Clewiston, capital \$15,000, incptd. with John J. O'Brien, Prest.; D. F. Dunkle, Second Vice-Prest.; Marion N. O'Brien, Secy.

Fla., Jacksonville-The Florida Joint-stock Land Bank, being organized, temporary headquarters at 901 Graham Bldg., capital \$250,-000 6% interest.

Fla., Miami-Southern States Finance Corporation, capital \$25,000, ineptd. with W. W. Hall. Prest .: W. M. Huber. Vice-Prest .: Edwin Morgan, Secy.

Ga., Atlanta-Trustees Loan & Savings Co., capital \$10,000, incptd. by Chas. R. Harts-field, John D. Stewart, C. A. McKibben.

Ga., Reynolds -- Citizens State Bank of Reynolds, capital \$15,000, incptd. by G. H. Goddlar and others.

Ky., Frankfort-Meade Central Bank, of Ekron, Meade County, organized, capital \$15,-000, with J. M. Joyce, J. S. Dowell, and J. D. French.

Kv., Harlan-Citizens National Bank, capital \$100,000 incptd. with C. E. Ball, Prest.; A. Bowling, V.-P.; G. G. Whitcomb,

Ky., Louisville-The Southern Trust Co., Lincoln Bank Building, capital \$200,-000, organized with Casselberry Dunderson, Prest.; Albert C. Dulaney, Vice-Prest.

La., Franklin-The Edward H. Peterman Insurance Agency, organized at Centreville, La., Edward H. Peterman, Mgr.

Md., Baltimore-Bond Investment Co., capital \$10.000, incptd. by Chas. F. Delmar, David Vance, Melvin Hopkins, all of Dover,

Tenn., Rockwood - Rockwood National Bank, organized capital \$50,000; conversion of Rockwood Bank & Trust Co.; J. D. Farmer, applicant.

Dallas-Railroad Building & Loan Association, capital \$5,000,000 ineptd. with Lynn P. Talley, Prest.; J. C. Gilbert, Secy.-Treas.; and Holland Bartlett and Thornton. Genl. Attys.

Tex., Dallas-The Old Line Building and Loan Assn., capital \$10,000,000, incptd, by Lewis T. Carpenter, A. L. Slaughter, W. L.

Tex., Houston-Home Owners Loan Corp., capital \$25,000, incptd. by E. R. Carruth, W. E. Hausman, C. C. Johns.

Tex., San Antonio-Prudential Investment Corp. capital \$25,000, incptd. by Carl Luetcke, Mrs. Alfred Vander Stucken, M. E. Thayer.

Va., Berryville-Clarke County will organize a Building and Loan Assn., Harry Warden, Chairman, Rice Levi, Ralph Ware and C. N. Van DeVenter.

Va., Norfolk-The Federal Guarantee Mortgage Co., Inc., capital \$1,000,000; incptd. by Paul Y. Collens, Prest.; S. Q. Collins, Jr., Sec.

New Securities.

Ala., Bessemer-School-City sold \$200,000 bonds. Address The Mayor.

Ark., Clarendon - Road - First National Co. of St. Louis, Mo., purchased \$160,000 of Corp., capital \$300,000, incptd. by Granville | 6%, 20 yr., Monroe County Road Improve-

ment District No. 3 bonds at \$102.50. (Lately noted.)

Ark., Lonoke-Road-Lonoke County Commrs., Road Improvement District No. 13, T M. Fletcher, Secy., will receive bids until Sept. 18 for \$65,000 to \$75,000 of 6% bonds; dated Oct. 1, 1922.

Ark., Pine Bluff-Sewer-City sold to M. Elkins & Co., of Little Rock, \$58,000

Ark., Pine Bluff - Paving - Pollar Street Paving District, sold to W. C. Hudson, of National Bank of Arkansas, about \$120,000 6% bonds; J. S. Currie, Chairman, H. R. Russell, Secv.

Fla., Crisland-Road and Bridge-Prudden & Co., of Toledo, Ohio. purchased \$150,000 bonds at par and accrued interest.

Fla., Eustis - Civic Improvements voted \$5000 for sewerage system.

Fla., Ft. Pierce-Road and Bridge-St. Lucie County Special Road and Bridge District No. 2, P. C. Eldred, Clerk, sold to Sidney Spitzer & Co., Toledo, O., \$50,000 of 6% coupon bonds at premium of \$1653.

Fla., Madison-Improvement-County Commrs., D. F. Burnett, Jr., Clerk, receives bids Oct. 2 for \$330,000 of 5%, \$1000 denomination, semi-annual bonds, dated July 1, 1922. (Lately noted.)

Fla., Miami-Road and School-Dade Countl Commrs. voted \$1,600,000 bonds, including \$1,000,000 for roads and \$690,000 for schools. (Lately noted.)

Fla., Palm Beach - Bridge - Palm Beach Bridge District will issue \$100,000 6% bonds of \$1000 denomination, to build bridge across Lake Worth; Hector Harris, Chairman, J. M. Cromer, George A. Long.

Fla., Plant City-Municipal Improvements City sold \$150,000, 6%, \$1000 denomination bonds, to Hillsborough State Bank of Plant City, for Caldwell & Co., Birmingham, Ala.

Fla., Safety Harbor-Street Paving and Light Plant - City sold to J. L. Arlett, Austin, Tex., following 6% improvement bonds; \$33,000 street paving and \$2000 street paving debt bonds; to M. D. Pipkin, Safety Harbor, \$10,000 light plant bonds, at par.

Fla., Tavares-Lake County Courthouse-Election will be held Oct. 10 to vote on \$250,000 5% bonds for erecting, equipping and furnishing a court house, H. R. Ferran, Chrmn. Board of Commrs., Lake County, Fla.

Fla., Zephyrhills-Water and Paving-City voted \$37,500, 6% bonds, \$500 denom.; address F. E. Tomlinson.

Ga., Atlanta-Mortgage-Georgia Railway and Power Co., G. W. Brine, V.-P. receives bids until Sept. 25, for \$50,000 bonds of Ga. Railway and Electric Co.

Ga., Floyd - School - The Trust Co. of Georgia, Atlanta, purchased \$60,000, 5%

Ky., Pineville-Road and Bridge-Bell County will vote in Nov. on \$400,000 bonds. Address County Commrs.

Ky., Whitley City-Road-McCreary County voted \$200,000 bonds. Address County Commrs.

La., Abbeville-Road-Vermilion Parish Police Jury voted \$500,00 bonds. (Lately noted.)

Arcadia-Road-Chatahoula Parish sold to Smith Bros. \$400,000 bonds, for Dist. No. 1, 2, 3,

La., Bastrop-Road-Morehouse Parish Police Jury contemplates voting on \$1,100,000

La., Baton Rouge-Street Improvements City receives bids until Sept. 29 for \$80,000 6% bonds; address L. J. Ricaud, Commrs.

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La., Covington-School-St. Tammany Parish School Bd., Elmer Lyon, Secy. receives bids until Oct. 6 for \$30,000, 6% bonds.

La., Donaldsonville—Levee—Lafourchee Basin Levee District, C. C. Weber, Secy., receives bids until Oct. 6 for \$500,000 of 5%, \$1000 denomination, semi-annual coupon bonds. (Lately noted.)

La., Jennings—Paving—City voted \$135,000 of 5½% semi-annual bonds. Address The Mayor.

La., Jonesville-School-Catahoula District Parish School Board No. 5 will receive bids Oct. 3 for \$75,000, 2\frac{1}{2}\% bonds dated Oct. 1. H. W. Wright, Secy.

La., Monroe-Improvement-Bastrop, La., will sell bonds for \$20,000.

La., Rayville-Levee-Marine Bank & Trust Co., of New Orleans, La., purchased \$120,000 of 5%, \$1000 denomination Tensas Basin Levee District bonds, at par plus premium of \$1002, dated Sept. 1, 1922. (Lately noted.)

Md., Port Deposit—Stein Bros. & Boyce, 217 E.| Baltimore St., Baltimore, Md., pur-chased \$25,000 5%, semi-annual bonds; dated Sept. 15, 1922. (Lately noted.)

Miss., Caton-Roads-Madison County Rd. District No. 3, sold to Kaufmann-Smith-Emert Co., Inc., 8t. Louis, Mo., \$96,000 bonds at premium of \$1245; dated Sept. 5, 1922. (Lately noted.)

Miss., Collins-Water and Light-City sold A. K. Tigrett and Company, Memphis, Tenn. \$30,000, 6% bonds. (Lately noted.)

Miss., Collins - Road - Covington County, District No. 4, Mt. Olive and Arbo precincts, voted \$50,000 bonds. Address County Commissioners.

Miss., Corinth-Water, Sewer, Light-City sold to Wm. R. Compton & Co., St. Louis, Mo., \$100,000 bonds at par plus premium of \$5814 and expenses. (Lately noted.)

Miss., Fayette-Road-Jefferson County, Road Dist. sold to A. D. Tigrett and Company, Memphis, Tenn., \$40,000 bonds. (Lately noted.)

Miss., Hazelhurst-Road-Copiah County, Fourth Supvrs. Dist., voted \$50,000 bonds.

Miss., Jackson—Armory—Hinds County, Bd. of Supvrs. will receive bids until Oct. 2, for 60,000, 6% semi-annual bonds of 500 denomination.

Miss., Leland-School and Light-J. H. O'Quinn, Clerk, will receive bids until Sept. 20, for \$14,000 bonds dated Oct. 1.

Miss., Richton-Water-Town sold to A. K. Tigrett and Company, Memphis, Tenn., \$12,-500 bonds.

Mo., Fulton-Roads-Fulton Special Road District sold the H. P. Wright Investment Co., \$50,000 5%, \$1000 denomination bonds.

Mo., Kansas City-City Improvements-City voted \$3,200,000 bonds. Address Mayor, Cromwell.

Mo., Lexington-Bridge-Lafayette County Commrs. voted \$258,000 bonds. (Lately noted.)

Mo., Richmond—Road, Bridge, Culvert—Ray County, Forrest Smith, County Clk., voted \$192,000 bonds. (Lately noted.)

Mo., St. Joseph-Sewer-Harris Trust & Savings Bank of Chicago, purchased \$705,-000 of 5% coupon bonds, dated May 1, 1922, at premium of \$42,850.50. (Lately noted.)

Mo., Taneyville - Bridge - Taneyville Special Road District sold to Friedman, D'Oench & Duhme, of St. Louis, Mo., \$12,000 of 6%, \$1000 denomination semi-annual bonds, dated Jan. 1, 1922.

City sold \$135,000 bonds at a premium of \$175.50, to Taylor-Ewart Co., of Chicago.

N. C., Belhaven-Electric Light-W. K. Terry & Co., Toledo, purchased \$30,000 bonds at premium of \$111; dated July 1, 1922.

N. C., East Spencer-Street Improvements -George & Fetner, of Cherryville, N. C. purchased \$15,000 bonds at premium of \$90; dated July 1, 1922. (Lately noted.)

N. C., Elizabeth City-Water, Electric Light and Sewer-Board of Aldermen will issue \$800,000 bonds, including \$550,000 for water and electric light, and \$250,000 for sewers.

N. C., Gibsonville - Water and Sewer -Prudden & Co., Toledo, O., purchased \$50,000 water and \$30,000 sewer bonds at \$1680 premium. (Lately noted.)

N. C., Hamlet-Street Improvement-Page Trust Co., Hamlet, N. C., purchased \$200,-000 gold coupon bonds, at 2760 premium; dated July 1, 1922.

N. C., Kings Mountain-amprovement-Bd. of Commissioners receives bids until Oct. 2, for \$10,000, 6% coupon bonds, George E. Lovell, Town Secy.

N. C., Newton-Street Improvements-Bd. of Aldermen receives bids until Sept. 26, for \$25,000 bonds interest not to exceed 6%, \$1000 denom.; Clarence Clapp, Clerk.

Okla., Bristow—City Improvements—City voted bonds, \$40,000 park improvements, \$60,-000 water system, \$40,000 improve sanitary sewers and \$70,000 build storm sewer system.

Okla., Madill-Water Works-F. L. Yarger, Clerk, receives bids until Sept 20 for \$13,000 of 6%, 20-yr. maturity and \$28,000 of \$25-yr. maturity bonds; dated Jan. 13, 1920.

Okla., Skiatook-Water and Sewer-City voted \$44,000 bonds. Address The Mayor.

S. C., Charleston—Roads and Bridges— Charleston County Sanitary and Drainage Commrs., Jac. D. Lesemann, Chrmn., 39 Broad St., Charleston S. C., receives bids until Sept. 21, for \$500,000 6%, \$1000 denomination, semi-annual bonds; dated Jan. 1, 1922.

S. C., Laurens—Drainage and Improvement -D. L. Gray, Chairman Bd. Comm. receives bids until Sept. 20 for \$170,000 5 and 51/2 %

Tenn., Cleveland-Paving-City sold to I. B. Tigrett & Co., Jackson, Tenn., \$83,665 6% bonds, above par.

Tenn., Johnson City-Water System-City will vote on \$65,000 bonds. Address The Mayor.

Tex., Bryan-Paving-City issued \$32,000 5% paving bonds. Bids will be received until Sept. 25, E. E. McAdams, City Mgr.

Tex., Cass County (P. O. Linden)-Roads-The State Comptroller registered \$35,000, 6% bonds.

Tex., Cleburne-Road- Johnson County sold to Brown & King of Austin at par and accrued interest \$225,000 bonds.

Tex., Floyada - Water - Brown-Crummer, Wichita, purchased \$125,000 6% bonds.

Tex., Houston-Road-Harris County Commrs. Court, plans voting in Nov. on \$6,000,-000 bonds.

Tex., Lancaster-Water and Sewer-Wood & Smith Co., Dallas, Tex., purchased \$15,000 water and sewer bonds at par, plus \$251 premium. (Lately noted.)

McKinney-Road -Collins County Tex., McKinney-Road -Collins County Road District No. 4, will hold election on \$450,000 51/2% bonds.

Tex., Mykawa—City voted \$10,000 School bonds. Address The Mayor.

000 denomination semi-annual bonds, dated no. 1, 1022.

N. C., Asheboro—Street Improvements—

Tex., Rockdale—Road—Road Dist. No. 5, Milan County, Tex. voted \$35,000, 5½ % bonds; address E. A. Camp.

Tex., San Angelo - Building - City Commission plans election to issue \$110,000 bonds. Address The Mayor.

Va., Bristol-Street Improvements-S. G. Keller, City Mgr. receives bids Sept. 9 for \$50,000 6% bonds.

Va., Chatham-Street-Chatham Bank, of Chatham, purchased \$12,000 of 6%, 15 to 30yr. bonds, at premium of \$50; dated Sept. 1, 1922. (Lately noted.)

Va., Galax-Street and Water-City sold to Mountain Trust Co., of Roanoke, \$75,000 street and \$25,000 water, 6%, \$1000 denomination bonds at par, plus a premium of \$750.

Financial Notes.

The Mississippi Board of Bank Examiners have issued a statement showing that the 319 state banks reporting under the call of June 30, 1922 had aggregate resources of \$146. 926,983., including loans and discounts of \$91,040,372. Individual deposits subject to check were \$47,092,331,; savings deposits, \$23,0417,735.; time deposits, \$23,4477,759.; public deposits, \$18,513.857.; and bank deposits other than branches, \$2,885,297. Capital stock totaled \$12,464,950.; surplus, \$5,-993,907.; undivided profits less interest, taxes and current expenses, \$2,013,430.

W. Va., Charleston-The Empire Savings & Loan Co. increased capital to \$500,000.

Book Review.

The Immigration Problem. By Jeremiah Jenks, Ph. D., LL. D., and W. Jett Lauck. Fifth Edition, Revised and Enlarged by Rufus D. Smith, M. A. New York and London: Funk & Wagnalls Company. 1922 Cloth, \$3.

Theodore Roosevelt said that he considered immigration our most important problem, possibly excepting the problem of conserving our natural resources. Everyone interested in the future of the United States and its welfare, and that means everyone living within its boundaries is interested even if their minds be not occupied with the subject, will find this book instructive and most valuable. One has only to read a few pages of this newly revised work to fully comprehend the various points at which the immigration problem touches social life, business, educa-tion, the home, and above all the Govern-ment. It shows how immigrants have either prospered or failed here for the length of two generations, how they live, the percentage of them who become good citizens, those who are thrifty and own their homes, how various races and nationalities are assimmilated, whether they marry or keep to themselves, those who use this country only to make money and return home to their native lands, the principal occupations of the people of each race and nationality, the effects of immigrants upon real estate values, and upon our social and moral standards, how they affect labor both as to wages and general life, and many other important facts bearing upon the problem. The work is practically a new book, its revision being so thorough as to include the three per cent immigration law of 1921 which was extended, and also all other laws and regulations from those of 1917, with figures revised to conform to the census of 1920 and with three important new chapters by the editor, Rufus D. Smith. All of the facts presented are authenticated and are accompanied by expert opinions.

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Trade Literature.

A Comprehensive Booklet.

A booklet entitled "A \$100.000 a Year Supervising Engineer at Your Disposal" describes the engineering service of Ophuls & Hill, Inc., (formerly Ophuls, Hill & McCreery, Inc.,) 112-114 West 42nd St., New York. This covers mechanical, electrical, refrigerating and 4ce making engineering, etc. briefly but comprehensively.

Two Fine Publications.

The Reeves Pulley Co., Columbus, Ind., has recently issued an "Engineer's Manual" pertaining to their variable speed transmission. This booklet lists the complete line of variable speed tran missions and sets forth the various uses of this machine as well as mechanical data pertaining to it. This company has also distributed with its jobbers a new catalog, P-33, describing and illustrating the wood split pulley. Copies of either of these publications will be sent upon request.

A Fine Engineering Booklet.

Ophuls & Hill, Inc., consulting engineers, 112-114 West 42nd Street, New York, have issued a fine, large booklet showing several of their prominent installations of refrigerating plants, etc., the illustrations being especially clear and distinct with full detail. This organization began business in 1917 in one room and during the last five years it has handled more than \$10,000,000 worth of work, growing to be one of the largest exclusively consulting engineering firms in the country. The book also shows installations of electric power plants, more than 200 prominent light and power plants in 21 states having been installed under their supervision.

Fine Paving Records.

"The Last Analysis," is a booklet issued by the Barber Asphalt Company, Philadelphia, Pa., and showing how Trinidad Lake asphalt stands the test of time. Besides descriptive matter this publication contains sundry pictures showing streets in various cities which were paved years ago with this material and which have been maintained at a minimum of cost, some of them not demanding expenditures for half a dozen years of more. A street in Washington illustrated was laid 43 years ago and the maintenance cost has been only \$.0086 per square yard per year. A number of other instances of long life and low maintenance cost are also noted, not only in Washington, but in other cities.

Fine Catalog of Road Machines.

Austin road oilers, sweepers and sprinklers are handsomely and accurately illustrated and fully described in Catalog H of the Austin Manufacturing Co., Chicago. It also covers heater attachments for oilers, and other machinery, besides giving advice concerning the oiling of roads so that users of these machines will be able to obtain the very best results. Stress is laid upon the importance of sweeping roads before they are oiled; otherwise the oil cannot penetrate the surface of the highway as it should do in order to give satisfaction. The sweepers are also exceedingly complete for road or street pur-These machines may be obtained for either horse traction or motor traction. The cover of the catalog is finely executed in colors.

Series of Fine Catalogs.

Catalogs 161, 162, 163 and 164 of the Whiting Corporation, clarvey, III., treat respectively of "Ladles," "Tumbling Mills," "Core Oven Equipment," and "Trucks and Turntables." These take the places of previous catalogs on the same products. They are copiously illustrated and the descriptions are accompanied by tables of dimensions, specifications, etc. In every way they are fine and complete.

Roofing Materials.

Karnac Bulletin No. 5 concerning roofing materials of Gardiner & Lewis, Inc., 30 Church St., New York, and 5 North La Salle St., Chicago. is a large and full publication giving detailed information as to its subject. Specialties of this manufacture include waterproofing asphalt, waterproofing fabric, roofing fabric, roofing fabric, roofing asphalt, liquid damp proofing, trowel plastic, brush plastic, stone backing, structural steel coating, expansion joint cement and caulking rope.

Pulverized Coal Combustion Systems.

A fine catalog on the Rayco pulverized coal systems, their design, installation and operation has been issued by the Raymond Bros. Engineering Co., Chicago. This company, which furnishes complete engineering and manufacturing service for preparing, distributing and burning pulverized coal, maintains its own staff of engineering experts to advise customers upon problems of combustion, etc. The book is finely illustrated with pictures of complete plants and of sectional diagrams displaying details. Tabulated data is also given where necessary.

Telescopic Hoists Tested.

The results of various tests which prove the safety, speed and economical operation of G&G telescopic hoists for removing large quantities of ashes and handling other loads between floors, are given in pamphlet No. 190, just published by Gillis & Geoghegan, Inc., 537 West Broadway, New York. One of the tests made under actual working conditions on the job showed, it is stated, that 85 round trips were made between floors 16 feet 8 inches, with a 150 pound load, using only one cent's worth of current. Each step in the operation of the equipment is clearly illustrated. Copies of this booklet, which is half letter paper size for filing, may be secured on request.

Relays, Operation and Application.

With the increasing tendency towards more intricate networks and with the rapidly increasing practice of interconnecting existing electric systems, the General Electric Company has prepared a 28 page Bulletin No. 47606 describing relays and their operation and general application. The table of "Application of Standard Relays" in the back of the bulletin will assist in obtaining a general idea of the different types and applications of the more common relays. When the table is used as a guide for selection, the figure numbers, where given, will assist in locating information pertaining to some of the more usual applications. If the text, or other available publications, do not cover the conditions under investigation it is suggested that recommendations be secured from the manufacturer. In which case a complete wiring diagram of the system should be supplied, upon which should be noted all present types of relays, the size, length and spacing of all conductors, all sources of power, and the capacity and percent reactance of all connected synchronous apparatus, reactors and transformers.

Describing Mine Apparatus.

The Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., has just completed the preparation of a 64-page illustrated publication on mining apparatus. In addition to line material, the publication, which is known as Catalogue 6-M, contains much information about mine safety switches, Frankel solderless connectors, tapes, babbitta, solders, micarta gears, mine locomotives and mine locomotive headlights.

A Book of Louisville.

The Merchants and Manufacturers' Association of Louisville, Ky., is mailing to merchants in Kentucky and surrounding states 20,000 copies of its handsome and most complete trade directory and buyers' guide. This attractive publication just is sued contains sixty-five pages of useful information for persons buying any kind of merchandise. It is clearly printed, bound, fully illustrated with pictures of Louisville's mercantile and manufacturing buildings and plants, homes, public buildings, office buildings, hotels, the river front, the parks, etc. The book explains fully the plan by which members of the association pay the railroad fares of persons coming to Louisville to buy and it also gives a report of the Louisville market, an outline of the industries and advantages of the city and its electrical advantages. There is also a complete list of members of the Merchants and Manufacturers' Association and a guide listing alpha-betically thousands of articles.

Improved Automatic Cellar Drainers.

The Penberthy Injector Co., Detroit, Mich. have recently developed a new attachment for increasing the efficiency of their automatic cellar drainers. It is noted that the sump water rises very slowly the float acts upon the valve so gradually that it often opens but a very little, just far enough to pump out enough sump water to prevent the float from rising any further, and that this in turn stops the valve from opening any wider and a dead center position is established. Now, the improvement overcomes this source of trouble, so that it is of decided value, making the drainers better than ever adapted to meet requirements for a dependable, inexpensive device to remove perioulc accumulation of seepage water from below the sewer level. The drainer is also being fitted with an improved ejector which will operate on much less water pressure than that hitherto used. This makes greater economy of service. A circular describes the drainers in detail.

Electrically Operated Pumps.

To show the feasibility of applying electric motors for driving pumps of all kinds and to point out the considerations involved in selecting the best type and construction of motor and control for different installations, the General Electric Company has pre-pared a 60-page bulletin, No. 48028, which says that the most desirable type of motor and control for any specific installation is determined not only by the starting and running torque characteristics of the pump, but also by the pumping requirements. In considering the various factors that dictate the type of electrical equipment, the pumps have been divided into three general classes, (a) reciprocating, (b) rotary, (c) centrifugal. The characteristics of each class are reviewed separately. One of the most productive and beneficial applications of electric power to mankind in general, according to this bulletin, is the use of motor-driven pumps for reclaiming land. Other applications menanufactur. , has just page illustratus. In ublication, contains switches.

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adopted, are municipal pumping, dry docks, mine pumping, chemical plants, sugar and paper mills, phosphate mining, tanneries, ice manufacturing, refrigerating plants, sulphur mining, etc. The Bulletin also gives a complete list of engineering tables. "Riveting Made Commercial." In a booklet of sixteen pages the Kobert Machine Co., Inc., 50 Church St. New York,

tioned where motor-driven pumps have been

tells of "How Electric Riveting Was Made Commercial." This 's an attractive and useful publication as it contains a full description of the process, accompanied by several illustrations. The cover page has a picture in colors showing a man at work with a riveting machine.

A Valuable Bulletin.

The B. F. Sturtevant Co., Hyde Park, Boston, Mass., has issued a new 72-page engineering bulletin on pneumatic collecting and conveying. It contains 33 pages of pictures and diagrams, 17 pages of useful tables -how to find the size of fans, the suction, volume, revolutions per minute, and horse-power for any system, cubic feet of air handled per minute, size of pipe and ducts used, and various other valuable tables. Data is also given on dust collecting from grinding and polishing machines, tumbling barrels, sand blast machines, coal breakers,

shoe machinery and the removal of fumes, gases, etc. In addition, there are parts on the conveying of pulverized coal, fibrous materials, coffee, ashes, wool, wood chips, etc., etc. A copy will be sent on request.

Pumps for Stationary Service.

A new edition of Catalog A of the M. T: Davidson Co., 154 Nassau St., New York, has just been issued covering the principal general line of Davidson pumps for stationary service. It also gives instructions for the care and operation of pumps as well as valuable tables and other data. The book is finely printed and the pictures are clear and complete.

New Line of Hoists.

Bulletin No. 35, issued by the Lidgerwood Manufacturing Co., 96 Liberty Street, New York, covers their line of two-speed hoists for slack line cable excavators. It shows their new engines gotten out for drag line scraper work, which are especially designed to withstand very severe usage and they have a two-speed arrangement of gears, giving very powerful line pull while the bucket is digging and high speed with light pull for rapidly conveying the bucket. All are self-contained on a box form of bedplate with especially designed frictions, ventilated brake and friction flanges and they have proved very successful on this class of work.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financia; interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers, or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Heavy Demands for Slate.

The National Slate Association, 757 Drexel Building, Philadelphia, Pa., says that the demand for and shipments of roofing slate during July of this year were the greatest in several years, according to producers re-porting to the Association. Many homes and other dwellings and other buildings which were roofed with temporary materials during the rush of war work are now being re-roofed, slate being used in a majority of instances. Shipments of slate during July, according to reports from more than 50 per cent of producers, exceeded production for the month by nearly 60 per cent, making considerable inroads into the stock on hand. The demand for blackboard slate also continues to grow, more contracts for educational buildings being reported from 27 states in the first seven months of 1922, by \$30,000,000 than were noted in the entire year of 1920. Residences increased by \$221,000,000; churches, etc., over \$13,000,000

Two Branch Locations Changed.

It is announced that the Los Angeles branch shop and warehouse of the York California Construction Co., is now located at 5051 Santa Fe Ave., Los Angeles, Calif. This company are Los Angeles representa-tives of the York Manufacturing Co., of York, Pa., manufacturers of ice making and refrigerating machinery. They are now located in fine new offices, warehouse and shops immediately connected with railroad facilities. The Atlanta representatives of this company have also moved into a new building, this being the Southern Construction & Supply Co., formerly located at 116-118 Central Ave., and now located at the corner of Houston and Jackson Sts., Atlanta,

Mechanical Method of Grading Coal Piles.

One of the large iron mining companies in the Lake Superior District was fortunate in finding available a year's supply of coal. Storage facilities were not sufficient to stock such an amount so it was a question of enlarging the coal dock or piling the coal in such a manner that it could all be stored on the existing dock. This was done at first by using hand methods and later using mechanical methods. Twelve men were used when it was being done by hand shovelers. Someone suggested that they use an Ingersoll-Rand 6H "Little Tugger" hoist with a drag scraper for the work, they becoming very ex-tensively used to haul and load ore and rock in the mines. The machine is a small, compact. double drum hoist which develops 7 to 81/2 horsepower on 60 to 80 pounds air pressure. One of the drums was called haulage drum and the other, the tail-rope drum. When one drum is engaged, the other runs free. The haulage rope is laid from the drum directly to the front of the scraper.
The tail-rope is led from the drum to a snatch block or sheave mounted conveniently behind the coal pile, and is attached to the back of the scraper by a clevis. In this way one man can operate the scraper in both its forward and backward motions and so do all the work. Thus one man with a hoist replaces twelve hand shovelers,

Would Standardize Prepared Roofing.

With the aim of establishing standardization of building materials in their line of production the Barber Asphalt Company, Land Title Building, Philadelphia, Pa., have sent out a letter signed by Vice-President C. W. Bayliss, to 35,000 dealers and whole-sale distributors of roofing throughout the United States, and in which he says: "We have realized for a long time that the beset-

ting sin of the prepared roofing industry has been and is too many grades and brands. This company is at present manufacturing 24 different grades of prepared roofing, marketed, (exclusive of private brands), under four different brands in varying weights. It will be quickly evident that the utmost in economy cannot be obtained where continuity of operation is constantly interfered with by the necessity of repeated stops and changes during manufacture, due to the large number of varying grades. Increased investment in materials and storage facilities further increase the cost. Prompt service is inter-fered with. We believe there is no good reason or necessity for a manufacturer to make more than one brand of prepared roofing in light, medium and heavy weights. We are urging on manufacturers the wisdom of eliminating all brands except one to a manufacturer, that to be confined to three weights in smooth surface goods and to two weights in slate surface goods. Owing to the neces-sity of meeting competition, this company cannot accomplish this unless the industry as a whole concurs. Therefore, if you concur in the suggestions made here, will you please co-operate by writing your opinion and recommendations to the manufacturers or wholesale distributors from whom you are buying, to the end that prepared roofing may be made and distributed at the lowest possible cost, thereby redounding to our mutual benefit?"

Opening Factory Branch Offices.

Alfred Box & Co., Inc., Philadelphia, Pa., manufacturers of the Box cranes, have opened a direct factory branch office in New York city, the address being 332-A, 30 Church St. N. C. Failor, a Cornell graduate and a thoroughly experienced engineer, specializing hitherto in the handling of material is in charge of the branch. The opening of this office marks a radical change of sales policy and it is the firm's intention, in order to extend better service, to open direct factory branch offices in centers from which the majority or its orders are received.

District Office Opened.

The Clyde Iron Works Sales Co., sole distributors for the Clyde Iron Works, of Duluth, Minn., are opening up a district office in Memphis, Tenn., and will handle sales of hoisting machinery, logging and excavating machinery of their complete line throughout the central part of the United States surrounding Memphis. Oliver Maggard, district manager in charge, was formerly at the factory in Duluth, but recently at the com-pany's office in New Orleans, La. H. F. Reed, assistant manager, was formerly with one of the leading contractors in Memphis.

Several Appointments.

The McClave-Brooks Company, Scranton, The McClave-Brooks Company, Scranton, Pa., manufacturers of the McClave combustion systems, have appointed B. S. Briggs, 1736 South 18th Street, Omaha, Nebr., as their representative in that state and also in the western part of Iowa. On October 1 C. H. Thomas, now attached to the Chicago office of the company, will become manager of the Detroit branch office which will take over the sales work previously handled by A. H. Sloan & Co., Inc., of that city. Joseph B. Noros, 834 Connell Building, Scranton, has been appointed special representative of the company in the anthracite coal fields and in the eastern part of Pennsylvania.

[From "The Advertising Year Book for 1921-1922."]

"Onward," The Watchword for Advertising.

By RICHARD H. EDMONDS, Editor Manufacturers Record, Baltimore

[Telegraphed to Jesse H. Neal, Secretary, Associated Business Papers at the Atlanta Convention in 1921.]

From the earliest of Biblical days the value of advertising has been more and more clearly seen. Through all the ages men have realized that without publicity or advertising their efforts would be in vain.

The inspired writer in chapter twenty-four of Numbers said, "Come therefore and I will advertise thee," and in chapter four of Ruth we read, "I thought to advertise thee."

The mighty display advertising campaign of the British Government in raising a volunteer army of five million and the similar work by our Government in selling Liberty Bonds were all merely an expression of appreciation and a growing realization of the power of advertising.

Without advertising, England could not have raised its mighty volunteer army. Without advertising, the United States could not have found twenty million bond buyers. The same power of advertising could now sell prosperity to the whole country. There is enough to write about and talk about to stir the nation to a realization of our country's limitless resources and illimitable development potentialities. The power of all-pervading, all-compelling advertising work literally alive with the fire of truth and enthusiasm would quicken every heartbeat, would thrill every American, would stimulate the young to deeds of achievement in the business world to match the achievements and the glory of the battlefield and would stir afresh the blood of the old.

The flag of America's patriotism unfurled in advertising rightly done, the bugle call to work, the drum beats' charge would lead us on quickly to commercial power and glory and prosperity. Then down with the pessimism of the fainthearted camp followers, down with pessimistic spirit of the financial interests which are afraid to broaden out and which are rather inclined to shrivel up business than to enlarge its operations, and up with the flag of optimism!

Onward with "Sound the Charge" through every well tested and proved advertising method.

Then we would soon see a mighty army of a nation of one hundred and five million people putting to disastrous rout every faint-hearted preacher of pessimism in bank, in office, and in factory. Some say, "We cannot afford to advertise." The answer is, "You cannot afford not to advertise." Others say, "Why advertise when there is no business to be had?" The answer is, "Because the only way to create business is by advertising." Some banks say, "Why advertise when we have no money to loan?" and the answer is, "No class of business ever needed to cultivate the public's favor more than bankers now do." Perhaps they may have no money to lend today, as some say; but he is not a good banker who fails to sell credit to every customer who has the proper security with which to buy it. A banker borrows money from his depositors and sells credit to his borrowers. It is a merchandise transaction. It would be a poor merchant who could not find ways to provide goods for his customers so long as they could pay. It is a poor banker who cannot find credit to sell to his customers so long as they are likely to pay the price and assure the final redemption. Bankers therefore cannot afford not to advertise, especially at the present time. Nor for that matter can any other class of business men.

As typified in the work of the advertising convention newspaper publishers intensify their ways and means of advertising whenever business men lessen theirs. Many industrial interests shut down when business is dull; but when business is dull live newspapers push out with greater vigor than ever before. They practice what they preach. Let others follow their preaching and their example and soon once more

would be heard "the music of progress, the whirl of the spindle, the throb of the locomotive, the roar of the furnace" Pessimism would be buried beneath the abounding spirit of optimism. Credit would be restored to the merchant and the manufacturer. The banker would no longer be afraid to do business. The spirit of patriotism for business is as vitally important to the nation's welfare as was the spirit of patriotism for the war four years ago. The slacker then was a coward. The slacker and the pessimist of today are doing the country infinitely more harm than did the slacker of war times. May the work of the advertising convention lift aloft the banner of business patriotism and stir the nation to follow where it leads!

A New Thought On a Popular Subject.

By C. P. DENSLOW, New York.

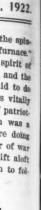
Aside from its admitted merits as a conversation promoter and stimulator, the prohibition act has determined definitely the answer to an old and interesting question, namely: What is dearest to the soul of civilized man? If the question has ever occurred to you, you may have answered variously, as others have done:—God, Country, Life, Liberty, Honor, Love, Money—but it is now clear that we have all been wrong. It is Booze.

We may freely admit that man loves God, but does he not willingly break every one of the ten commandments, that are generally accepted as God's direct behest, for the sake of Booze? Which, then, is more beloved? Man's dearest prize is not life-witness the consumers of wood alcohol in defiance of all warnings and in face of every tragedy. Nor is it liberty-prison has obviously no terrors that can outweigh the wild joy of eluding the enforcement agents. Is it love? No-man will desert, maltreat, yes, even kill his nearest and dearest for Booze. Is it his country? Scarcely, while with every smuggled drop he makes a silly mockery of the very foundation of his country, the Constitution. Honor? Ha! Humorous thought, in view of the trickery, thievery, lies and all the moral filth with which man will bedaub himself for a quart or less. Money runs Booze the closest second but loses out at last when the question arises of giving up one or go without the other. "I'll take it" is the invariable answer, whatever the price.

Let us pause then, before any of us seek to deprive humanity permanently of that which means to it more than God, Country, Life, Liberty, Love, Honor, and Money! Since Booze is so powerful and so beloved of man that he will sacrifice all this for it, must there not be something inherently worthy in it? Some precious attribute to which many of us have long been blind-some inextinguishable virtue, that however we may seek to smother it beneath the dust of prejudiced Puritanism, will ultimately blaze and burn, like truth itself, beaconing us on to joy and peace. Does not the holy zeal with which man acquires, produces, consumes and hoards Boozs confirm this idea? Have we not here, in fine, a religion of supreme truth on which all men can agree -Boozeism? Then why not lay aside all our outworn theories of what is good, sacred and desirable, and lift up our hearts unreservedly to this glorious and noble cult?

\$500,000 to Be Expended for Improvements and Extensions to Roanoke Water Supply.

Roanoke, Va., Sept. 11—[Special.]—The Roanoke Water Works Company has been ordered by the State Corporation Commission to spend \$500,000 within the next two years on necessary improvements and extensions. In order to increase the water pressure and supplies for domestic use and fire protection, many mains in the business section will be replaced by a larger size. New rates for water will go into effect February 1, 1923.



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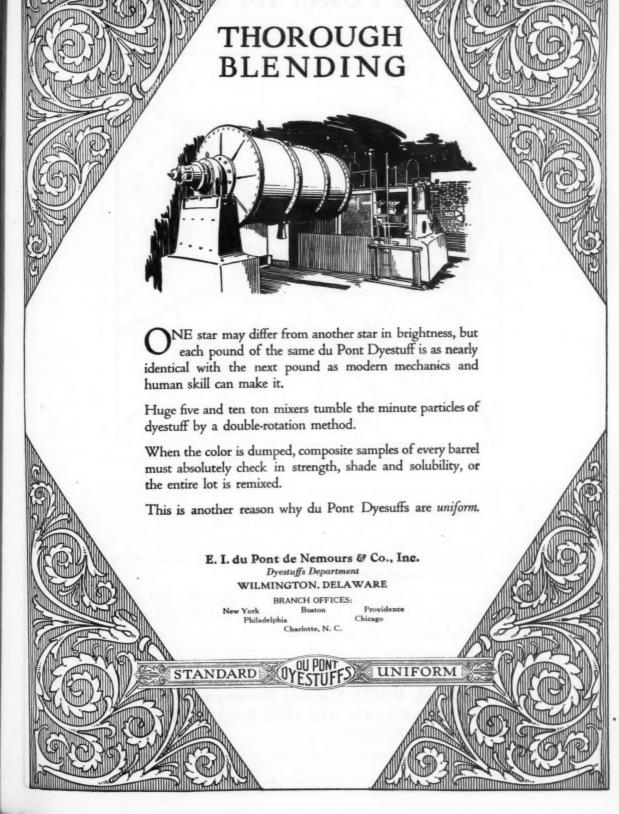
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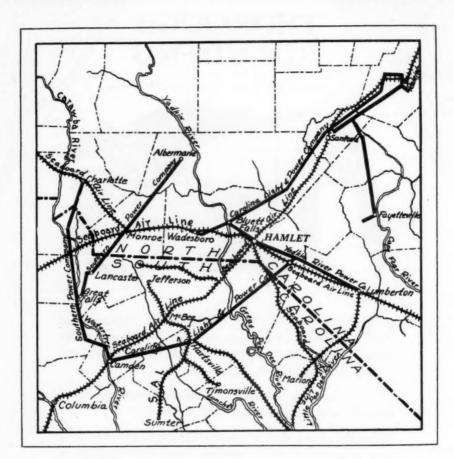
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Abundant Power for Industries



The Hydro-Electric lines from the plant at Bluett Falls on the Yadkin River radiate from Hamlet, N. C., supplying power to operate industries along the Seaboard Air Line Railway. Suitable locations for industrial plants are available. Territory in a radius of fifty miles around Hamlet produces 465,000 bales cotton.

The elevation of this section of the Carolinas, the drinking water and drainage stand for the health conditions necessary to successful industrial operations.

Information in detail is available upon application to:

JESSE M. JONES, General Development Agent SEABOARD AIR LINE RAILWAY

ROOM 734 ROYSTER BUILDING

NORFOLK, VA.

BLACK & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

OFFICES:

Suite 1208 GARRETT BUILDING - BALTIMORE, MD-6 HAMILTON ROW - BALTIMORE, MD-HAGERSTOWN, MD.

September 21, 1922.

WE BUY MUNICIPAL BONDS

We are interested in the purchase of Southern Municipals including road, school, county, drainage and levee bonds.

M. W. ELKINS & CO.

Southern Trust Bldg.

Little Rock, Ark.

MARINE BANK & TRUST COMPANY

New Orleans, Louisiana

\$2,300,000.00 Capital and Surplus

General Banking - Domestic and Foreign Correspondence Invited

WE BUY MUNICIPAL BONDS

Write us if your community is contemplating issuing bonds or has bonds to sell.

THE W. H. SILVERMAN CO.

309 Mercantile Library Bldg.,

Cincinnati, Ohio

Seasongood & Mayer

Ingalls Bldg.,

Cincinnati, O.

County City School

Write us if you have any for sale.

NOTICE TO CONTRACTORS

We want to buy bonds issued by cities, towns counties, school, road or drainage districts that you may be able to take in exchange for work. Address us at our nearest office.

W. L. SLAYTON & CO.
New Orleans, La.
Chicago, Ill.

Toledo, Ohio
Glasgow, Mont.

Tampa, Fla.

TODD & McCOLLOUGH

Members of

AMERICAN SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS

Auditing, Cost and Accounting Systems, and Federal Tax Service.

No. 328 South Tryon St.

Charlotte, N. C.

Investment Bankers

are offered

Power and Light Securities

issued by companies with long records of substantial

We extend the facilities of our organization to those desiring detailed information or reports on any of the companies with which we are identified.

Electric Bond and Share Company

(Paid-up Capital and Surplus, \$29,000,000)

71 Broadway

SOUTHERN We Buy

Correspondence Solicited

MUNICIPAL
BONDS

CALDWELL & CO., NASHVILLE, TENN.

New York
Chicago Chattanooga St. Louis
Knozville

WE BUY

Municipal Bonds

THE ROSENSTIEL-ELLIS COMPANY FIRST NATIONAL BANK BUILDING

Contractors and Municipal Officials

We are always in the market TO PURCHASE

Good municipal bonds issued by cities, towns, counties and school districts

BREED, ELLIOTT & HARRISON

322 WALNUT ST.

CINCINNATI, OHIO

We Buy Bonds City, County, School and Road, from Municipalities and Contractors WRITE

THE PROVIDENT SAVINGS BANK & TRUST CO. CINCINNATI

MARYLAND TRUST COMPANY

BALTIMORE

Transacts a General Trust and Banking Business

Correspondence and interviews invited

CAPITAL.

\$1,000,000

HAMMERMILL LETTER HEADS

For Bank, Mill, Mine, Factory and Commercial House 8 ½ x11—Full 20 lb, Weight 1000——\$5.35 5000—\$16.75 2000——8.70 10000—28.50

Shipped 48 Hours After Receipt of Order Charges prepaid to your railroad station Samples on request

LAREW PRINTING CO., Knoxville, Tenn.

YOUNG & SELDEN COMPANY

MANUFACTURING

Bank and Commercial Stationers

BALTIMORE, MD.

Renewed Activity in Quicksilver Mining.

Terlingua, Texas, September 9-[Special.]-Quicksilver mining which has been at a low ebb in this district for several months shows signs of revival. The Rainbow Mining Company is preparing to reopen its mine and furnace. Other properties which have been closed down during most of the year are to resume operations in October, it is stated. During the summer prospectors have done considerable exploration work in the district with the result that a number of outcroppings of cinnabar ore have been found. In some of these surface showings pure quicksilver has been uncovered in pockets of the ore.

The Revolt for Civilization Has Begun,

W. E. BACKUS, Advertising Manager, The Otis Hidden Co., Louisville, Ky.

The writer has read the editorial on the front cover of your August 17 issue, entitled "The Revolt FOR Civilization." with interest

This certainly hits the nail on the head, and is admirably expressed. Certainly it is time that all people with any common sense appreciate these facts.

You are doing what more of our editors should have the courage to do and I am sure the people of our country will sturdily champion you in your continued good efforts to remedy these conditions while they yet may be remedied



PROPOSALS

BUILDINGS

GOOD ROADS

Bids close October 9, 1922

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., September 13, 1922.—SEALED PROPOSALS will be opened in this office at 3 p. m., October 9, 1922, for furnishing and delivering electric cooking equipment, for the U. S. Veterans' Hospital, Jefferson Barracks, St. Louis Mo.

erans' Hospital, Jefferson Barracks, St. Louis, Mo. Specifications may be obtained at this office in the discretion of the Supervising Architect. Jas. A. Wetmore, Acting Super-vising Architect.

Bids close Oct. 6, 1922.

Bids close Oct. 6, 1922.

TREASURY DEPARTMENT, Office of the Supervising Architect. Washington, D. C., September 8, 1922.—SEALED PROPOSALS will be opened in this office at 3 p. m., October 6, 1922. for the construction, including mechanical equipment, of the United States Post Office at Charles Town, W. Va. Drawings and specifications may be obtained from the Custodian of the site at Charles Town, W. Va., or at this office in the discretion of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect.

Bids close October 18, 1922.

Bids close October 18, 1922.

OFFICE OF THE CONSTRUCTING OUARTERMASTEE, ABERDEEN PROVING GROUND, MD. Sealed proposals will be received in this office until 10:00 A. M., October 18, 1922, and then opened, for the construction of twenty sets of officers' quarters, at Edgewood Arsenal, Md. Plans and specifications may be obtained at this office, upon the deposit of \$10.00, which will be refunded upon return of same in good conditions, or they may be seen at the Quartermaster's office, Edgewood Arsenal, Md. The right is reserved to accept any or to reject all bids for this project.

Bids close October 7, 1922.

Bids close October 7, 1922.

PROPOSALS FOR PORTLAND CEMENT.
—Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C. until 10:30 o'clock a. m., October 7th, 1922, at which time they will be opened in public, for furnishing the above-mentioned cement Blanks and information relating to this Circular (1497) may be obtained from the first selection of the officer of the circular (1497) may be obtained from the Circular (1497) may be obtained from the first officer of the circular (1497) may be obtained from the first officer offi

Bids close October 16, 1922.

\$196,000 Drainage Bonds

West Palm Beach, Fla.
Bids will be received by the Treasurer
of the Highland Glades Drainage District
on Monday, October 16, 1922, at 11 o'clock
A. M., at Room No. 1, Post Office Building,
West Palm Beach, Fla., for the sale of
\$196.000.00 drainage bonds of the Highland
Glades Drainage District.
The right is reserved to reject any and
all bids.

hide All bids.

A certified check for two per cent of the total amount to accompany each bid.

C. E. CHILLINGWORTH.

RATE: 35 cents per line per insertion.
PUBLICATION DAY: Thursday.
FORMS CLOSE 4 P. M. Monday.
DAY LETTER: When too late to send copy by mail to reach us by 4 P. M. Monday. forward by day letter.
THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:
Published every business day; gives information about the industrial. commercial and financial activities of the South and Southwest.
The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.
The same rate applies—25 cents per line per insertion.

Bids close Sept. 30. 1922.
OFFICE OF THE CONSTRUCTING QUARTERMASTER, ABERDEEN PROVING GROUND MD. Sealed proposals will be received in this office until 10:00 A. M., September 30. 1922, and then opened, for construction of twenty frame stable buildings. 29x140 feet, each for fifty-two horses, at Edgewood Arsenal, Md. Plans and specifications may be obtained at this office, upon the deposit of \$10.00, which will be refunded upon return of same in good condition, or they may be seen at the Quartermaster's Office. Edgewood Arsenal, Md. The right is reserved to accept any or to reject all bids for this project.

\$750,000 5% Road Bonds

\$750,000 5% Road Bonds

MADISON COUNTY, FLORIDA

Madison, Fla., September 9, 1922.

The Board of County Commissioners of
Madison County, Florida, will receive sealed
blds for \$330,000 5% Thirty Year County
Road Bonds, dated July 1, 1922; accrued
interest from date of bonds to date of sale
to be considered in bld. Bids addressed to
the undersigned clerk.

Bids will be opened October 2, 1922, at
10 o'clock A. M., certified check made to
L. A. Fraleigh. Chairman. for 5% of
amount of bld must accompany the bld.
Bonds have been validated by the Circuit
Court and a favorable opinion of Col. John
R. Thomson, of New York, up to date.

The Board of County Commissioners reserves the right to reject any and all bids.

D. F. BURNETT, JR..

County Clerk.

\$17,000 School and Light Bonds

New Brockton. Ala.

Town of New Brockton offers for sale \$17,000 School and Light Bonds. The issue and voted on June 26 and carried by large majority. The Issue runs 30 years and carries a rate not exceeding 5%. Town of New Brocton is a thrifty wide awake little town located in Coffee County. Ala. on the Atlantic Coast Line railroad and is entirely out of debt. not owing anything for bonds or floating debt. The town carries a nice balance all the year 'round and its management has been ideal for the past 12 years. The legal matters pertaining to the election for the bond issue was handled by one of the best attorneys in the State of Alabarma. by one of the best attended of Alabama.
HON. E. M. DISMUKES, Mayor.

Bids close September 27, 1922.

Bids close September 27, 1922.

PROPOSALS FOR CEMENT.—Office Missispip River Commission. 1st and 2nd Districts. Customhouse, Memphis. Tenn.—Sealed proposals for furnishing and delivering 24,000 sacks of Portland Cement will be received at this office until 11 a. m., September 27, 1922, and then opened. Further information on application.

Bids close October 16, 1922.

\$100,000 Drainage Bonds

\$100,000 Drainage Bonds

West Palm Beach, Fla.

Bids will be received by the Treasurer of the Palm City Drainage District on Monday, October 16, 1922, at 12 o'clock M. at Room No. 5, Post Office Building, West Palm Beach, Fla., for the sale of \$100,000.00 drainage bonds of the Palm City Drainage District.

The right is reserved to reject any and all bids.

A certified check for two per cent of the total amount to accompany each bid.

all bids.
A certified check for two pro-the total amount to accompany each bid C. E. CHILLINGWORTH, Treasurer.

Bids close October 4, 1922.

\$225,000 6% Drainage Bonds KINGSTREE SWAMP DRAINAGE DISTRICT

KINGSTREE SWAMP DRAINAGE

DISTRICT

Composed of a part of each of the Counties of Williamsburg. Florence and Clarendon, S. C.

The Drainage Commissioners of Kingstree. Swamp Drainage District offers for sale to the highest bidder Two Hundred Twenty-five Thousand (\$225,000) Dollars, the total authorized issue of bonds of the said drainage district the proceeds of which are to be applied to the payment of the cost of constructing canals, ditches, laterals and other improvements for the drainage and improvement of the lands within the said drainage district, the plans and specifications of which are on file in the office of the Clerk of Court of Williamsburg County, S. C. Bonds are issued under the provisions of the Acts of the General Assembly of the State of South Carolina, authorizing the establishment of drainage districts in said State. Said bonds are coupon bonds of the denomination of One Thousand (\$1000) Dollars each, one-fourth in 1942 and one one-fourth in 1947, and bearing interest at the rate of 6%, payable to bearer, at his option in the City of New York or any bank or banks in South Carolina designated by the purchaser. Sealed bids. each accompanied with a certified check for Five Hundred (\$500) Dollars must be filed not later than Wednesday, October 4, 1922, at 12 o'clock noon, the offices of Kelley & Hinds, Attorneys, Kingstree, S. C. Pellver or address bids to W. E. Nesmith, Chairman, Kingstree, S. C. Right is reserved to reject any and all bids. All bonds dated March 15, 1922, and interest payable annually on the 15th day of March.

W. E. NESMITH. Chairman, Kingstree, S. C. J. C. YOUNG, Lake City, S. C.

W. E. NESMITH. Chairman, Kingstree, S. C. J. C. YOUNG, Lake City, S. C. J. N. McKINZIE, R.F.D. Cades, S. C. Commissionel

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September 21, 1922. Manufacturers Record.

Bids close October 10,1922

Bids close October 10,1922.

TREASURY DEPARTMENT, Supervising Architect's office, Washington, D. C., Sept. 14, 1922.—SEALED PROPOSALS will be opened in this office at 3 p. m., Oct. 10, 1922. for the installation complete of four full magnet control electric elevators for the U. S. Veterans' Hospital, Jefferson Barracks, St. Louis, Mo. Drawings and specifications may be obtained at this office in the discretion of the Supervising Architect. Jas. A. Wetmore, Acting Supervising Architect.

Bids close Sept. 28, 1922.

Steel Bridge

Spruce Pine, N. C.

Spruce Pine, N. C.

The Board of Road Commissioners of Mitchell County, North Carolina, and the Board of County Commissioners of Yancey County. North Carolina, iointly advertise for bids for the construction of a steel bridge at Huntdale, N. C., and at Boonford, N. C., the bids to be opened at Spruce Pine, N. C., on the 28th day of September, 1922, at 4:00 P. M.

All bids must be sealed and properly signed by the bidder and accompanied with a certified check equal to five per cent of the amount of the price of the bid or a corporate bond equal to ten per cent of the amount of the bid.

Apply to W. F. Denean, C. E., Bakersville, N. C., for plans and specifications of bridges.

Mail bids with Checks or Bonds to R. S. Roland, Treasurer Yancey County, Burnsville, N. C., or deliver in person or by wire to said Boards to joint session at Spruce Pine, N. C., on the above named date.

BOARD OF ROAD COMMISSIONERS

date.

BOARD OF ROAD COMMISSIONERS

OF MITCHELL COUNTY, N. C.

AND

BOARD OF COMMISSIONERS

OF YANCEY COUNTY, N. C.

Bids close October 16, 1922.

Road Improvement.

Coalmont, Tenn.

Coalmont, Tenn.

Sealed bids will be received by the Grundy County Highway Commission at Coalmont, Tenn. until 2 P. M., October 16th, 1922, for the grading and drainage of five and one-half miles of highway from the foot of the mountain in Payne's cove to the Franklin County Inc.

The Commission will reserve the right to let the drainage separate from the grading and also will reserve the right to reject any or all hids.

A certified teck for one thousand dollars, made payable to Grundy County Highway Commission, must necompany each bid (except those bidders bidding on drainage alone will be required to furnish certified check for five hundred dollars) as a guaranty of good faith,

Address

J. B. COCHRAN, County Engineer.

Bids close September 25, 1922.

Address

Paving

Athens, Tenn.

The Mayor and Aldermen of the City of Athens, Tenn. will until 12 (twelve) o'clock noon on September 25th, 1922 receive sealed bids for approximately 28.317 square vds. paving, 9.439 cubic vds. excavation, 640 lineal feet 12" pipe and trenching same.

same.
3,000 lineal feet 18" pipe and trenching

same,
175 cubic yards concrete 1-2-4,
18,764 lineal feet curb,
133 catch basins,
for Improvements Districts 5-6-7-8 comprising Jackson, Washington, Ingleside and
Madison Sts.
Plans and specifications can be secured
from the City Recorder at his office in the
City Hall.

from the City Recorder at his office in the City Hall.

Bidders will be required to deposit a certified check to the amount of 10 per cent of their respective bids to insure contract and bond in case their bid is accepted.

Contractors bidding on this work shall bid on all items in proposal sheet attached to specifications.

Excavations is to be done without steam equipment.

Excavations is to be usue without equipment.

BONDS FOR THE WORK HAVE BEEN SOLD.

The City Council reserves the right to reject any and all bids.

FRED STEPHENSON.

City Recorder.

R. P. KNIGHT.

Mayor.

Bids close October 2, 1922.

Road Construction

Sealed bids will be received by the Highway Commissioners of Special District Nos. 1 and 4, of Oktibbeha County, Miss., until until 1 o'clock Monday, October 2, 1922, for the construction of the following roads to wit:

for the construction of the following roads to wit:
Sturgis-West Point road, Maben road, and Bradley road in District No. 4, and the Double Springs road in District No. 1. And for furnishing the necessary materials required in construction of said roads.
The construction of same to be according to plans and specifications now on file in the Chancery Clerk's office of Oktibbeha County. Miss., and each bid is to be accompanied by a certified check in an amount of \$500, made payable to the Board of Supervisors as evidence of good faith of bid submitted.
This, the 6th day of September, A. D. 1922.

J. R. LANG.

J. R. LANG, Chancery Clerk.

Bids close September 25, 1922.

Street Paving

Aiken, S. C.

Street Paving

Alken, S. C.

Sealed proposals will be received by the City Council of Aiken, S. C., at the City Clerk's office at 12 o'clock noon on September 25, 1922, and at that time publicly opened, for the paving of Park Ave, from Short Street to the Southern Railway Passenger Depot, and the square in front of the Post Office at the intersection of Park Ave, & Laurens Street.

Approximate quantities:
6,000 Cubic Yards of Excavation.
18,000 Square Yards of Pavement.
7,000 Running Feet of Curbs or Headers.
2,000 Running Feet of Curbs or Headers.
2,000 Running Feet of Drain Pipe.
20 Catch Basins and Gratings.
Bids will be received upon the basis of concrete pavement and curbs under the plans and specifications prepared by the engineers in charge. Alternate bids will be considered upon any other paving material which the bidder may wish to submit. Such bids must be accompanied with a complete specification and full information regarding the proposed material at least four days before the date set for opening of bids. As a guarantee of the execution of the contract, if awarded, all bids must be accompanied by a certified check for 5% of the amount of the bid made, payable to the order of the City.

All bids for concrete pavement must be made upon the forms furnished by the City.

The City reserves the right to reject any

made upon the forms furnished. City.

The City reserves the right to reject any and all bids.

Plans and specifications and proposal forms may be obtained after September 18 from Ashburst and Sudlow. Engineers in charge, upon the deposit of \$10.00, which will be returned upon the return of same in good order.

BY ORDER OF THE CITY COUNCIL.
HENRY BUSCH.
Clerk and Treasurer.

Bids close October 2, 1922.

Pavement With Vertical Fibre Brick of Seventh Street

Alexandria, La.

Sealed bids will be received by the Commission Council of the City of Alexandria, La., up to 7.30 p. m., of Monday, October 2nd, 1922, for the paving with vertical fibre brick of Seventh St., in the City of Alexandria, La., consisting of the following approximate quantities:

15,300 sq. yds. brick paving on 5-inch concrete base.

492 cubic yds. concrete in A and B drains.

43,500 lbs. reinforcing steel in A & B drains.

94,400 lbs. cast iron in grates, etc.

570 lin. ft. stone headers.
Work will be done and paid for under the provisions of Act 187 of 1920 of the General Assembly of the State of Louisiana, as amended.

Certified check made payable to the City of Alexandria, La., in the sum of Twenty five Hundred Dollars, shall accompany each bid.

Bond in the sum of fifty per cent of the contract price of the work will be required to ensure the faithful performance of the contract.

The city reserves the right to reject any and all bids.

For further information apply to W. H. Sylvester, City Engineer, Alexandria, Va.

Bid close October 10, 1922.

U. S. Engineer Office, Mobile Ala.— Sealed proposals will be received here until 11 o'clock A. M., October 10, 1922, and then opened, for the construction of one 100-foot Diesel Electric towboat. Further in-formation on application.

Bids close October 3, 1922.

Water Works and Sewer System

Cedar Grove, La.

Sealed proposals will be received by the City of Cedar Grove, La., up to 8 o'clock P. M. of the 3rd day of October, 1922, for the furnishing of all materials and labor required in the construction of a water works and sanitary sewer system, under one general contract. The approximate quantities are as follows:

PUMPING PLANT.
Duplicate air compressors, natural gas engines and triplex pumps.
Gauges and Venturi meter.
Building complete.
3—250*x8-14" drilled wells.
RESERVOIR.
75.000 gallon 125" water tower.
1—Concrete surface reservoir.
ALTERNATE.

ALTERNATE. Steam pumping plant with 50,000 gallon

Steam pumping plant with 50,000 gal water tower.

SEWER SYSTEM
TRENCHING AND BACKFILLING.
33,956'—Cut 0 to 6'
13,100'— 6 to 8'
4,574'— 8 to 10'
3,510'— 10 to 12'
599'— 12 to 14'
275'— 14 to 16'
389'—16 to 18'
667'— 18 to 20'
SEWER PIPE LAID.

213'—" 14 to 16'
389'—" 16 to 18'
667'—" 18 to 26'
SEWER PIPE LAID.
36.212'—8" Vit. Pipe.
36.912'—8" Vit. Pipe.
36.912'—10" " "
16.075'—12" " "
1.160'—15" " "
1.24'—12" C. I. Pipe.
1.280'—6" on 8" Y's.
120'—6" on 10" Y's.
290'—6" on 12" Y's.
290'—6" on 15" Y's.
APPURTENANCES.
25—Flush tanks.
99—Manholes.
6—Drop manholes.
74'—Ex depth MH.
1.950'—3" pipe and trench.
25—Service connections.
1—Conc. outlet protect.
DISPOSAL PLANT
Imhoff tank, sludge bed dosing chamber, sewage ejectors, filter beds, etc.
Plans and specifications on file for examination at the office of the Mayor and City Clerk, Cedar Grove, Caddo Parish, Louisiana, and at the office of the Engineers.
E. T. Archer & Company, New England Bidg., Kansas City, Missourl, or Merchants Building, Shreveport, La. who will furnish prospective bidders with bidders' blanks without charge.
Individual copies of the plans and specifications will be prepared for those request-

Individual copies of the plans and specifications will be prepared for those requesting same, with the understanding that they will be returned at or before the time of letting, for the use of which a nominal fee of \$10.00 for both will be made and not refunded.

All bids must be made out on bidders blanks and must include the furnishing and installation of all equipment as no bid will be considered on any individual item, and shall be accompanied by a certified check of 5% of the amount bid, guaranteeing the bidder entering into a contract, and furnishing the necessary bonds within fifteen days.

The council reserves the right to reject Consulting Engineers, or accept any bid.

U. S. BARTMESS, Mayor.
H. F. MASON, City Clerk.
E. T. ARCHER & COMPANY,

Bids close October 16, 1922.

Road Improvements

Dade City, Fla.

Dade City, Fla.

Highlands Special Road and Bridge District, Pasco County Florida. will receive bids on approximately 100 miles road improvements until 10 o'clock A. M., Monday, October the 16th, 1922.

A. J. BURNSIDE, Clerk.

Board County Commissioners.

Lakeland, Fla.

Bids close October 10, 1922

Concrete Structures: Filter Equipment and Brick Filter House

Greensboro, N. C.

Proposals will be received by the City Council of Greensboro, N. C., until 12 o'clock M, Tuesday, October 10, 1922, for building a filtration plant and appurte-

nances.

The work includes the construction and equipment of a six million gallon filter plant, the construction of a coagulation basin with dividing wall, capacity 1,148,000 gallons, and the construction of a mixing chamber. The principal quantities involved

e: 8,000 cubic yards of earth excavation.
1,900 cubic yards of concrete.
225,000 pounds of reinforcing steel.
The equipment of six 1,000,000 gallon

filter units. 80,000 brick, laid in filter house walls. Steel wash water tank of 70,000 gal-

The equit.

filter units.

80,000 brick, laid in filter house.

80,000 brick, laid in filter house.

Steel wash water tank of 70,000 gallons capacity.

1.000 G. P. M. motor-operated pump.
Piping. valves, and miscellaneous items.
Plans will be on file and may be seen at the office of the City Manager, Greensboro, N. C., or at the office of the Ludlow Engineers. Winston-Salem, N. C., after September 15. After that date copies of the specifications, bid blank, and contract may be obtained from the Engineers or City Manager. For the convenience of prospective bidders, the Engineers will furnish copies of the plans upon application accompanied by a check for ten (\$10.00) dollars to cover the cost, or separate prints at one (\$1.00) dollar each.

Each bid must be accompanied by a certified check in the sum of \$5000, or 5% of the amount of purtial bids.

Proposals will be opened publicly with the usual rights reserved.

P. C. PAINTER.

City Manager.

Bids close October 10, 1922.

Materials and Construction Proposed Water Works and Sewerage Systems

NOTICE TO CONTRACTORS Covington, La.

Sealed proposals will be received by the Mayor and Town Council. Covington, La., on or before 7:30 P. M., Tuesday the 10th of October. 1922, and then publicly opened, for furnishing machinery, materials and equipment, and constructing a water works and sewerage system for the said Town in accordance with plans and specifications on file in the office of the Secretary of the Town of Covington, La.

The works include furnishing cast iron and galvanized pipe and fittings, fire hydrants, valves and boxes, motor driven pumping sets, reservoir, elevated tanks, pump house, sewer pipe and branches, sewage pumps, and constructing the systems complete.

Each proposal must be accompanied by a certified check for three (3%) per cent of the bid, made payable to the Hon. L. A. Perreand. Secretary of the Town Council of Covington, La., as evidence of good faith.

Specifications, form of proposal, contract

faith.

Specifications, form of proposal, contract and plans may be seen at the office of the Mayor of Covington, La., or will be mailed upon application to the Engineers. The Kramer Enginering Company. Magnolia, Miss., upon a depost of \$15.00 to insure their safe return.

The Council reserves the right to reject any and all bids, or to waive formalities, and to make any award which in their opinion is to the best interest of the Town of Covington.

ROBERT W. BADON, Mayor.

ROBERT W. BADON, Mayor, A. PERREAND, Secretary. THE KRAMER ENGINEERING CO.,

Consulting Engineers, Magnolia, Miss.

Bids close September 25, 1922

Spavinaw Water Project NOTICE TO CONTRACTORS
Tulsa. Okla.

Sealed proposals for the construction of the major portion of the Spavinaw Water Sunply Project for the City of Tulsa. Okla. will be received by the Water Commission of the City of Tulsa. and may be filed at the office of the City Auditor, City Hall. Tulsa. Okla.. until 3:00 p. m.. Monday. September 25, 1922. and will be opened and publicly read immediately threafter at a regular meeting of the Water Commission of the City of Tulsa at 3:00 p. m., Monday. September 25, 1922. Proposals will be received on the following contracts: Contract No. 1—Telephone Line. Contract No. 2—Clearing Site of Spavina Water.

on the following co
Contract No. 1—Telephone Line
Contract No. 2—Clearing Site of
inaw Lake.
Contract No. 3—Spavinaw Dam
Contract No. 4—60-inch Rein:
Concrete Pipe.
Contract No. 5—Tunnel and Reinforced and An-

Contract No. 5—Tunnel and Approaches.
Contract No. 6—54-inch Reinforced
Concrete Pipe.
Contract No. 7—Mohawk Reservoir.
Contract No. 8—Furnishing Cast Iron
or Steel Pipe and Specials.
Contract No. 9—Furnishing Gate

Valves.

Contract No. 10—Laying Cast Iron or Steel Pipe.
Contract No. 11—High Pressure Reservoir.
After the reading of the bids on these contracts they will be immediately considered, but in no event will any contract or contracts be awarded earlier than fortyeight (48) hours thereafter.
The principal quantities are approximately as follows:
DAM: Concrete, 79,000 cubic yards.
Earth Embankment, 182,000 cubic yards.

Earth Embankment, 182,000 cubic yards.

PIPE: 28 miles of 60-inch and 25 miles of 54-inch pre-cast reinforced concrete pipe.

Earth Excavation in trench, 310,000 cubic yards.

Rock Excavation in trench, 26,000 cubic yards.

TUNNEL: 7000 feet 84-inch Tunnel.

3050 feet 84-inch mono.

MOHAWK RESERVOIR: 300.000 cu-ble yards earth embankment. REINFORCED CONCRETE HIGH PRESSURE RESERVOIR OR RES-PRESSUR ERVOIRS

PRESSURE RESERVOIR OR RESERVOIRS:
10,000,000 gal. aggregate capacity.
10,000 feet 36-inch Cast Iron or Steel
Pipe.
6,000 feet 30-inch Cast Iron or Steel
Pipe.
8,000 feet 20-inch Cast Iron Pipe.
Specials and Valves.
Each proposal must be accompanied by
a certified check on any reputable bank or
trust company. payable without reserve to
the City of Tulsa. Okla. for five per cent
(5%) of the amount of the bid.
All proposals must be made on blank
forms furnished by the City of Tulsa and
in accordance with the "Requirements for
Bidding and Instructions to Bidders."
Proposals may be tendered on one or more
contracts or on all of the contracts, but
any proposal must include all items under
the contract or contracts for which bid is
tendered.

the confract or contracts for which bid is rendered.

Plans, specifications and requirements for bidding and instructions to bidders, are on file at the office of the Water Commission at the City Hall and may be seen at the office of Trammell & Holway, Engineers, on the Spavinaw Water Supply Project, 329 Kennedy Building, Tulsa, Okla., or at the office of Dahney H. Maury, Consulting Engineer for said project, 1445 Monadonek Block, Chicago, Ill. Complete plans and specifications will be furnished by the Engineers or by the Consulting Engineer, upon the deposit of \$56 by check payable to Trammell and Holway. Upon return of the plans and specifications in good condition within a reasonable time after the awarong of the contracts, \$30 will be refunded. Proportionatt deposit and refund may be arranged for if bidder desires only parts of the plans.

arranged for if bidder desires only parts of the plans.

The Water Commission reserves the right to reject any bid or bids, or all bids, and to waive any informalities.

WATER COMMISSION OF THE CITY OF TULSA.

A. J. Rudd. Chairman.

G. R. McCullough
C. S. Avery
H. L. Standeven
A. L. Farmer
Roy Garbett. City Auditor
Trammell and Holway. Engineers ?29
Kennedy Building, Tulsa, Okla.
Dabney H. Maury, Consulting Engineer Chicago, Ill.

Bids close October 3, 1922.

Water Works and Sanitary Sewer System

Haines City, Fla.

Sealed proposals for furnishing material and constructing a Water Works System and a Sanitary Sewer System for the Town of Haines City, Fla., will be received by the Mayor and Council at the City Hall, until 2 P. M., October 3, 1922.

The Water Works System will consist of approximately 4 miles of 4".6", 8" and 10" cast iron pipe, with specials, valves and hydrants, a clear water collecting well, pump station and equipment, and a 100,000 callon elevated tank.

The Sewer System will consist of approximately 1.7 miles of 8", 10" and 15" vitrified pipe, with manholes, flush tanks, and appurrenances, and a settling tank and the under-drain system. Haines City, Fla.

fied pipe, with manholes, flush tanks, and appurrenances, and a settling tank and tile under-drain system.

Each proposal must be accompanied by a certified check, payable to the Town of Haines City, Fla., to an amount equal to five (5%) per cent of the bid, as a guarantee that the contract will be entered into if awarded. A bond of one hundred (100%) per cent of the contract price will be required. Payments will be made on monthly estimates.

Plans and specifications are on file in the office of the City Clerk, at Haines City, Fla., and with Paul H. Norcross, Consulting Engineer, 1404 Candler Bidg., Atlanta, Ga.

Bidders may obtain copies from the Engineer, by enclosing certified check for twenty-five (\$25) dollars, payable to the Town of Haines City, Fla. If blueprints are desired they may be had at the cost of printing. If the plans, specifications and blueprints are returned within 30 days after opening bids, the check for twenty-five (\$25) dollars will be returned.

R. O. PHILPOT,

President City Council, JED R. YALE.

City Clerk.

PAUL H. NORCROSS, Consulting Engineer, 1404 Candler Building, Atlanta, Ga.

Bids close October 2, 1999

Construction of a Storm Sewer on Seventh Street

Alexandria, La.

Sealed proposals will be received by the Commission Council of the city of Alexandria, La. up to 7.30 p. m. of Monday, Oct. 2nd, 1922. for the furnishing of all labor, material and equipment and the construction complete of a storm sewer on seventh street in the city of Alexandria, La. consisting of the following approximate quantities, 3483 cubic yds. concrete 389.700 lbs. reinforcing 9000 cubic yds. excavation

Each bid shall be accompanied by certified check in the sum of Twenty-five hourded dollars, payable to the city of Alexandria.

Bond in the amount of fifty per cent of the contract price will be required for the faithful performance of the work.

The city reserves the right to reject any and all bids.

For further information apply to W. H. Sylvester, City Engineer, Alexandria, La. or V. M. AKE.

Secretary-Treasurer, Alexandria, La.

Bids close October 4, 1922. Alexandria, La.

Bids close October 4, 1922.

Drainage Canals

Frainage Canals

Kingstree. S. C.

Sealed proposals will be received by the Chairman of Kingstree S. C., until 12 o'clock noon. October 4. 1922, for constructing canals for drainage within said district.

Bids are asked upon approximately 14 million cubic yards of earth excavation; but the Commission reserves the right to award the entire work under one or more contracts, to the lowest responsible and competent bidder or bidders; and also, reserves the right to reject any and all bids and to waive informalities. Bids will be opened at 1 o'clock P. M., October 4, 1922, at the offices of Kelley & Hinds, Attorneys, Kingstree, S. C.

offices of Keney & Hills.

Tree, S. C.

For the convenience of prospective bidders plans and specifications will be furnished upon application, accompanied by a check for \$5.00, to cover cost of same, to P. G. Gourdin, Engineer, Kingstree, S. C. W. E. NESMITH, Chairman, J. C. YOUNG.

J. N. McKINZIF.

Commissioners.

Commissioners.

1922.

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Sewer

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La.

Cleaning Drainage Canals

Board of Drainage Canals
Board of Drainage Bolton, N. C.
Columbus County Drainage District No.
2, want to let contract with responsible
parties having a Drag Line outfit, to clean
out several miles of Canals. Anyone interested apply F. L. Finkenstaedt, Chairman.

Bids close October 2, 1922.

Material for Natural Gas Distribution System

Sealed proposals will be received by the Commission Council of the city of Alexandria, La. up to 7.50 p. m. of Monday, October 2nd, 1922, for furnishing the foliowing approximate quantities of material, 732 tons 4 inch bell and spigot cast iron cas nine.

gas pipe.
519 tons 6 inch bell and spigot cast iron

gas pipe.
225 ions 8 inch bell and spigot cast iron gas pipe. 166 ions 10 inch bell and spigot cast iron

106 tons 10 inch bell and spigot cast iron gas pipe.
21 tons specials. 12½ tons drip pots.
130 4 inch hub and gate valves.
60 6 inch hub and gate valves.
55 10 inch hub and gate valves.
55 100 inch hub and gate valves.
55 0service boxes.
55.000 bls. lead wool.
3000 lbs. untarred jute.
6000 lin. ft 4 inch genuine wrought iron pipe, plain ends.
8200 lin. ft. 6 inch genuine wrought iron pipe, plain ends.
8100 lin. ft. 8 inch genuine wrought iron pipe, plain ends.

pipe, plain ends, weight 28.55.

1.00 lin. ft. 10 inch genuine wrought iron pipe, plain ends, weight 34.24.

4000 lin. ft. 12 inch genuine wrought iron pipe, plain ends, weight 49.56.

20 4 inch flanged gate valves and companion flanges D. & F.

20 6 linch flanged gate valves and companion flanges D. & F.

12 8 inch flanged gate valves and companion flanges D. & F.

4 10 inch banged gate valves and companion flanges D. & F.

10 12 inch flanged gate valves and companion flanges D. & F.

5 4 inch pressure regulators.

3 6 inch pressure regulators.

4 8 inch pressure regulators.

5 4 inch orifice meters.

3 6 inch orifice meters.

1 Meter tester.

Alternate prices will be considered on standard full weight steel pipes in lieu of wrought iron pipe, the 8, 10 and 12 inch weighing as follows, 28.55—40.83—49.56.

Each bid shall be accompanied by certified check payable to the city of Alexan-

49.56.
Each bid shall be accompanied by certified check payable to the city of Alexandria, La., in the sum of five per cent of amount of bid.
Bond in the amount of fifty per cent of the contract price will be required for the faithful delivery of the material within the time specified

faithful delivery of the specified.

The city reserves the right to reject any and all bids.

For further information apply to W. H. Sylvester, city engineer, or V. M. AKE,

Secretary-Treasurer, Alexandria, La.

Bids close October 2, 1922,

Natural Gas Distribution System

Sealed proposals will be received by the Commission Council of the City of Alexandria, La.

Sealed proposals will be received by the Commission Council of the City of Alexandria, La., up to 7.20 p. m., of Monday, October 2, 1922, for the furnishing of all labor, tools, etc., and the construction complete and ready for operation of a natural gas distribution system for the City of Alexandria, La., as follows,

Laying the following cast iron pipe:

7.826 lin. feet 4-inch.
44,000 lin. feet 6-inch.
13,370 lin. feet 8-inch.
6,826 lin. feet 10-inch.
including the placing of all valves, specials, etc.

etc. Welding and laying the following wrought

Welding and laying the following wrought iron or steel pipe,
20,000 lin. feet 2-inch,
6,000 lin. feet 4-inch,
8,200 lin. feet 6-inch,
8,100 lin. feet 8-inch,
5,700 lin. feet 10-inch,
4,600 lin. feet 12-inch,
lincluding the placing of all valves, specials,

including the placing of all valves, specials, etc.

Each bid must be accompanied by certified check payable to the City of Alexandria, in the sum of five per cent of the amount bid

Bond in the sum of fifty per cent of the contract price will be required for the faithful performance of the work.

The city reserves the right to reject any and all bids.

For further information apply to W. H. Sylvester, City Engineer, or

V. M. AKE, Secretary-Treasurer,

Alexandria, Va.

Alexandria, Va.

CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS WATER POWERS, MISCEL-LANEOUS PROPERTIES.

COAL LANDS AND MINES

FOR SALE

Going coal mine. Coal, oil and gas lands. C. A. Croft, Box No. 3, Madison W. Va.

FOR SALE—Going coal mines—coal. oil and gas lands—timber tracts. Reports made on same anywhere. E. H. Morris, Box 518, Charleston, W. Va.

Hardwood timber on 17,000 acres of land from which larger mill logs are being removed. A good proposition for handle or slack barrel factory. Reasonable arrangements may be made by responsible purchasers. Write care P. O. Box 609, Opelousas, La. chasers. V

TIMBER LAND

Virgin Yellow Pine, Cypress and Hardwood timber, on transportation and at fair prices; also cut-over lands. For prices and full details address Arthur T. Williams, P. O. Box 42, Jacksonville, Fla. 30 years handling timber lands in Florida. Reference any bank in Jacksonville.

6800 acres near Charleston, S. C. 35.000,-600 feet extra fine pine timber. Best grade, 10.000,000 feet hardwood, principally cypress, Will cut 1,000,000 cross-ties high-grade. Near market. Logging conditions excellent. Good quality land and healthy location. Splendid buy for mill-man. Extra bargain as investment. J. R. Barbour, Benson, N. C.

TRADE OR SALE

Well equipped black land dairy, hay, stock and general farms in East Mississippi. Also timber tracts in several southern states from one to fifty sections. Attractive terms. L. Roberts, Crawford, Miss.

100 million feet virgin long leaf yellow pine on 34,560 acres, two miles railroad, three miles water. \$7.00 per acre in fee simple. J. B. Brewton, Vidalia, Ga.

RATES AND CONDITIONS

Rate 30 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check. postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c. per line; 300 lines, 26c. per line; 500 lines, 26c. per line; 500 lines, 26c. per line.

FARM AND TIMBER LAND

FOR SALE—Located in Manatee County, 22,000 acres of fine pine timber land, seventy-two million feet conservative estimate, Fine land for agricultural purposes, best turpentine proposition in south Florida; on railroad. If interested write F. Emory Sharp, Bradentown, Fla.

FARM FRUIT, AND TRUCK LAND

Five to six thousand acres high grade citrus and truck lands. in flowing well district, on Dixie Highway and A. C. L. Railroad between Orlando and Tampa. Splendid terms and a wonderful price to a quick buyer. Best colonization proposition in Florida. Wilmott & Co. Since 1883. Orlando Fis. buyer. Be Florida. V lando, Fla.

FOR SALE—2400 acres of good celery land, can get good flow well on it, will make an ideal sub-division; good spring on the land; will flow 5,000,000 gallons water every 24 hours. This spring has great medical properties in it. The spring alone will be worth some day what we ask for the whole thing. This property right on E. R. and the Dixie Highway. Answer quick, as this must sell and will sell right away. Address E. Stafford, Lake Monroe, Fla.

If you want a real paying farm or grove in South Florida write F. Emory Sharp, Bradentown, Fla. Reference First National Bank this city.

FINEST REAL ESTATE INVESTMENT
IN THE SOUTH.
"FAMOUS MOORE HAVEN, FLORIDA,
LANDS"
—WHOLESALE ONLY—
OWNERS RETIRING FROM
REAL ESTATE BUSINESS
12,000 acres of black Moore Haven soil,
well located, fronting Caloosahatchie River;
and County hard road to Lakeport. Will
send you Manufacturers Record article of
March 17th, 1921, describing Moore Haven
lands, writen by their staff representative,
entitled "AN EMPIRE IN THE BULLDING." Also article about Moore Haven and
Everglade lands in Manufacturers Record,
August 17th, 1922, by Florida State Engineer F. C. Elliott. For complete description of lands and price with easy terms,
address H. G. Gates, General Sales Manager,
South Florida Farms Co., Moore Haven, Fla.

FLORIDA—Come to Florida, "where its summertime in the wintertime, and pleasant all the year round;" no coal bills; no wintry lee or snow—Just sunshine, and health and opportunity. Send for booklet, "Largest Orange Tree in the World," and list of homes, groves and farms. Tampa-West Coast Realty Co. (Inc.) opposite Post Office" Since before the War," Tampa, Fa.

Orange Grove Broker, if you are interested in Florida orange groves, I will buy you one in any section; guaranteeing economy and service, fee small. Write me. M. E. James, Bartow, Polk County, Florida.

GEORGIA

FAMOUS CAROLINA SANDHILL
PEACH LANDS
7400 acres famous Carolina Sandhill
fruit lands, on main line S.A. L. Ry. between well known resorts Southern Pines
and Pinehurst, N. C. and Camden, S. C.
Highest plateau on S. A. L. Ry. from Richmond, Va. to Savannah, Ga. Unsurpassed
climate. Productive soil. Admirably adapted
to peach and dewberry culture. Excellent
investment. For sale by owner at a bargain. A gift at the price. J. R. Gordon,
Hamlet, N. C.

FARM, FRUIT AND TRUCK LAND

FARM—28 acres, on public road, on creek for fishing and hunting; real club ground, \$2500.

John Crowder, Defiance, Mo.

NEW MEXICO
For Sale—240 acres level land, rich virgin soil; fenced except wire; cased 80-foot well of fine, soft water; no buildings; on county highway midway between Deming and Silver City; autos pass every few minutes; two miles from Faywood Hot Springs P. O., seldom snows; always cool in shade. \$2000.
E. Brumback, Silver City, N. Mex.

SOUTH CAROLINA

Truck farms that pay dividends annually can be bought at reasonable prices here. Vegetables are shipped eight mouths in the year. Three and four crops are grown on the same land annually. Excellent climate and health. Plenty of labor: strikes unknown. Well organized association that sells all farm products. For particulars write. Lake Realty Company, Beaufort, S. C.

BUSINESS OPPORTUNITIES

RECEIVERS SALE ELECTRICAL GOODS.

Complete stock of electrical goods, appliances and fixtures appraised at \$9,000.00 to be sold at public auction at Winchester, Va., Thursday, Sept. 28, 1922, at 11 o'clock A. M. Splendid business opportunity in growing town.

Horbert S. Lagrick

Herbert S. Larrick, Robert T. Barton, Receivers. Winchester, Va.

Retiring manufacturing chemist, 20 years experience, has for sale formulas for line Toilet Preparations, Perfumes, Flavoring Extracts and Medicinal Preparations second to none. Several specialties not made by any other houses. Will sell part or all formulas. Would establish laboratories. Samples submitted. Address Chemist, Room 828 James Building, Chattanooga, Tenn.

Fourteen years' continuous experience in taking complete charge of large real estate propositions and disposing of them at auction. Complete organization, all experienced men. Large estate and farms a specialty. Address Oliver T. Wallace, Wilmington, N. C. or 332 Woodward Building, Washington, D. C.

I SPECIALIZE in industrial, warehouse and business sites at and adjacent to Wash ington, D. C.
M. B. HARLOW, Harlow Building, Alexandria, Va.

Washington, D. C.

FOR SALE AT PUBLIC AUCTION At Austin, Tex., in Travis County, on Tuesday, October 10th, 1922, at two o'clock P. M., all property and effects of the WOODWARD MANUFACTURING COMPANY, which originally constituted a well equipped truck body factory, consisting of the follow-

ing:
74.8 Acres of Land.
One Two-story Brick Building. 60'x190.'
All Wood-working and Iron-working ma-

chines.
Railroad, Water, Sewer and Power Lines.
All Lumber and Brick.
This is one of the best factory sites in
Texas. For further details write to Woodward Manufacturing Company at Austin.
Texas.
The right is reserved to reject any and
all bids.

For sale or will trade for good water power, timber tract, or same value, my equity in first-class apartment house build-ing in Chicago valued at over \$30,000. Ad-dress No. 6667, care Manufacturers Record, Baltimore, Md.

Interest open in Marine Transportation and Commission Company. Business enough from South to earn \$300,000 Net Annually, 25% on capital invested. Alfred S. Perry, Perry Building, Fairfield, Conn.

If interested in the
BEST SECTION OF THE SOUTH
If you want a Cotton Mill,
or Southern Mill Stocks
or Investment in Central Real Estate
Large Suburban Development property
or a Manufacturing Site
Address
F. C. ABBOTT & COMPANY
Trust Building, Charlotte, N. C.

BUSINESS OPPORTUNITIES

WANTED—To communicate with some manufacturers of water gas or coal gas ap-paratus. Address E. D. Cannon, Murfrees-boro, Tenn.

BUSINESS PROPERTY, RADFORD, VA.—With the completion of the Lee Highway and current civic improvements this city offers exceptional business opportunities. I have for sale a fine 2-story brick store building, living apartment on second floor. Excellent location, main business street. H. B. WALBRIDGE, Farmers & Merchants Bank Building, East Radford, Va.

FINANCIAL

BONDS—Have buyers for manufacturing, mercantile, industrial, mining; entire issues. A. W. Johnson, 212 Mass Bldg., Kansas City, Mo.

Prosperity of banking corporations built upon the ruin of the people. Read T. Cushing Daniel's book, "The Betrayal of the People" by Congress in passing the fraudulent gold basis Federal Reserve Act, and defeat any Representative who now tries to defend this financial scheme to rob the people. Popular edition. 25 cents.

The Mometary Educational Bureau 1416 F St., Washington, D. C.

Well established, good paying staple manufacturing business needs additional operating capital, safe and attractive. Write Box 746, San Antonio, Tex.

SPECIAL

EXECUTIVE open for engagement with important financial interests or corporation. Experienced in executive and corporation work and management, and competent to represent important interests in their corporation connections. Organization and promotion work and in handling monetary affairs, reorganizations and expansion financing programs of the first magnitude. Address No, 6068 care Manufacturers Record, Baltimore, Md.

FACTORY SITES

FREE FACTORY SITES,
FINANCIAL ASSISTANCE
AND OTHER ATTRACTIVE INDUCEMENTS
J. D. Stone & Company, Inc.
No. 4 Areade Building,
Norfolk, Va.

MANUFACTURING SITE. East Radford, Va. For sale two fine factory sites, level ground, adjoining N. & W. R. R. One with siding completed to edge of property. Splendid distributing center for all points north, east, south and west. Address H. B. Walbridge, Agent, Farmers & Merchants Bank Building, East Radford, Va.

Manufacturing site of 32 2/3 acres, one of Manufacturing site of 32 2/3 acres, one of the best inland manufacturing sites in the United States, between Washington and Bal-timore on main line of Baltimore & Ohio R. R., also Washington and Baltimore Boule-vard. Price cheap. For particulars address Ira K. Gruver. Brookland, D. C. Phone, Hyattsville, 49W.

BALTIMORE

FACTORY

SITES

William Martien & Company.

1413 Lexington Bldg.,

Paltimore Md.

Factory Site—One mile east of Petersburg, Va., 25 acres bounded on north by the Appointox River; on south by the Xorfok & Western Railway, concrete highway and electric car line.

Has good river frontage and is within N. & W. freight yard limits. Convenient for rail or water shipments. Quantity of sand and gravel. Good house with all modern conveniences, barns, etc., electric light. Street car stop at property. Low taxes. For further particulars write E. W. Tylar, Box 61, Hopewell, Va.

FACTORY SITES

Atlanta, Ga., business property for sale at attractive figures. Consists of two choice sites, 80x203 and 85x225, for combined manufacturing show room, sales and storag purposes. Only one mile from very center of City on Whitehall St., running back Southern R. R. and Central of Georgia R. R. tracks. Railroad property in Atlanta becoming scarce. These sites, at prices asked for superity and control of the state of the s tracks. Rainboad becoming scarce. These sites, at prices askel offer splendid investment opportunity. Address owner, P. O. Box 657, Atlanta, Ga.

INDUSTRIAL PLANTS

FOR SALE

New modern manufacturing plant, suitable for most any line. 1 Bidg. 50x100 ft. Monitor roof, with light airy cemented basement, Steam heat, Sprinkler system, Cheectric, Power and Labor, Large oil storagatank. Railroad Siding, other one story bidgs. 40 miles from Cinti on main line B. & O., 4 ½ acres ground, at two-thirds of original cost. Terms to suit. Address No. 6069 care Manufacturers Record.

INDUSTRIES WANTED

MISCELLANEOUS

Benson, N. C., main line A. C. L. R. R. seventeen-hundred population, sewerage and artesian well water throughout, in the center of greatest short staple cotton belt desires manufactories. Fifty-thousand bales marketed annually, Sites available, Address Chamber of Commerce, Benson, N. C.

We want a manufacturer or industry employing labor to locate at Jacksonville, Fig. We have 60 acres land on railroad and close to deep water on St. Johns River; brick streets, electric current, both power and lighting, water works system and street cars; three immense warehouses; housing facilities for 40 families.

Will make any reasonable concession to

Will make any reasonable concession to responsible parties. Will give long least nominal rental. Sell at very low figure or might consider stock in satisfactory energies. P. O. Box 48, Jacksonville, Fla.

PATENT ATTORNEYS

INVENTORS—Send sketch or model of your invention, for opinion concerning patentable nature, and exact cost of applying for patent. Book. "How to Obtain a Patent" sent free. Gives information on patent procedure and tells what every inventor should know. Established 25 years. Chamlee & Chandlee, 412 7th St. N.W. Washington, D. C.

PATENTS, TRADE-MARKS AND COPT. RIGHTS—Write for our Free Illustrated Guide Book and EVIDENCE OF CONCEPTION BLANK. Send model or sketch and description of your invention for our opinion of its patentable nature free. Highest references. Prompt service. Ressonable terms. Victor J. Evans & Co. 712 9th St., Washington, D. C.

PATENTS—Booklet free. Highest references. Best results. Promptness assured. Varson E. Coleman, Patent Lawyer, 624 Ft.. Washington, D. C.

LUMBER AND BUILDING MATERIAL

FOR SALE FOR SALE:

1 car 54x3-2½" Face B & Better Celling

1/2 car 54x3-2½" Face No. 1 Com. Celling

4/2 car 54x3-2½" Face No. 2 Com. Celling

3 car 54x4-3½" Face No. 3 Com. Celling

Ingram-Day Lumber Company, Lyman, Miss.

SITUATIONS WANTED

An experienced veneer man familiar with logs and logging would like to correspond with someone with a view of making a permanent connection. Address Box 118, Paducah, Ky.

A Southern hosiery yarn mill executive, with a practical and thorough knowledge of every detail incident to the manufacture of cotton yarns and a record of successful achievement covering the past seven years, contemplates a change of location with next 10 or 15 months. Address No. 6065, care Manufacturers Record, Baltimore, Md.

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executive, knowledge anufacture successful ven years, lon within No. 6065, imore, Md.

September 21, 1922. Manufacturers Record.

MEN WANTED

SALESMEN WANTED
The Cellugraph Engineering Corporation is prepared to take on a few salesmen located in manufacturing centers of the Inited States. The product of the corporation is a self-lubricating bearing already proven satisfactory in many thousand installations. Address C. H. Fish, General Manager, 73 Tremont Street, Boston, Mass.

ton, Mass.

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In the United States District Court for the Western District of Pennsylvania. May Term 1920. No. 354.

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1	40	220	1200	В	Fairbanks-Morse.
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1	50	220	1200	H	Fairbanks-Morse.
1	50	440	850	AN	Allis-Chalmers.
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Have just purchased from the Government the following Black and Galvanized Pipe (NEW).

17,000 ft. 1½"; 33,000 ft. 2"; 64,000 ft. 2½"; 49,000 ft. 3½"; 90,000 ft. 4"; 10,000 ft. 4½"; 11,000 ft. 4½"; 10,000 ft. 4½"; 5,000 ft. 7"; 20,000 ft. 8"; 5,000 ft. 12"; 20,000 ft. 10"; 12,000 ft. 12";

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Rods-100 tons 7/8" Round Rods, 14' to 22' lengths.

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Both new and used.
Big bargain in 5" and 6" Rubber Belting
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1—S in. direct connected to steam engine, Morris Centrifugal Pump, Excellent condition, f. o. b. Spartanburg, S. C.

1—Warren Duplex Steam Pump, 10x8x10; in excellent running order, Located at Spartanburg, S. C.

2—Union Steam pumps S. C. 6x8x6.

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1—40 H.P. Locomotive type Boiler, mounted on wheels, complete with stack and fittings, f. o. b. Spartanburg, S. C.

2—Upright boilers complete with fittings 16 H.P.

15 UMP CARS

3—2 rd. Steel. Koupel Side-Dump Cars, located at Spartanburg Cars, located at Spartanburg, Cars, located care presents or other stacks and states of the complete with fittings 16 H.P.

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10 H.F.

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3-2 yd. Steel, Keipel Side-Dump Cars, located at Spartanburg, S. C. In good running order.

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1-1000-gal. Knowles Single.
1-750-gal. Worthington Duplex.
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10-Seranton. slze 6x5% x6, new.
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1-Louisville Steam Dryer, size 6' x 25'.

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One six ton P!ymouth gasoline locomotive—36" auge, together with six logging cars. Above equipment in good operative condition. Write or wire.

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36° Gauge Locomotives
Good engines—Ready for service
1—Vulcan 10x14" 14 ton four wheel saddle

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Vulcan Saddle Tank Locomotive, 7 x 12, 36" Gauge, 150 pounds steam pressure.

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-14x24 Baldwin Saddle Tank Standard Gauge

Locomotive.

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-20-ton, 8-wheel, Brown Hoist, built late 1918. A.S.M.E. boiler, 50 ft. boom, double drums, perfect condition like

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 Price\$1000.00
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- Two-Nash Quad trucks, 10" solid tires, four wheel drive and four wheel steer.
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One—3/4-yard Boss side loader concrete mixer, chain driven frame, O. & S. vertical steam engine, 7"x 8½" with sprocket, 30"x7" fly wheel and 16"x8" iron pulley, 1½" Gardner governor, all mounted on steel truck.

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- Several—3 H.P. type Z Fairbanks-Morse gas engines, connected with 5"x5" typhoon pumps.

 Price On application
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60-70-80-85 lb. relayers

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Pavers, mixers, rollers, shovels, cranes, crushers, etc.

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Steam & Electric COMPRESSORS of all sizes.

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Here's an opportunity to get a real plant quickly and at a right price. Better get in touch with us immediately.

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1-15-20 ton Brown hoist 8 wheel M.C.B. 40 ft.
boom, bucket operating drums.

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1-15-ton McMyler Crane 8 wheel M.C.B. 40' boom, single line, fine condition, attractive price.

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Full revolving Road Cranes 7 ton capacity with
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1—Marion model 31 1-yd. dipper, traction wheels shop No. 3068.

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1-Osgood No. 18 high lift % yard dipper, cater-pillar traction.

LOCOMOTIVE

American 6 wheel switcher, cylinders 18 x 21" drivers 44" wheel base 11' 6", weight 60 tons.

ASPHALT PLANT 1-Iroquois 800 yd. Boad Asphalt plant Complete.

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1-Set Wickes rolls, 10' 6" between housing 1%"
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1-Gates 18-K; 60" x 20' revolving screens; 42" bucket elevator 80 ft. centers,

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Ready immediate shipment near Harrisburg, Pa.

Rail of other weights and switches in stock.

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Above equipment located at Norfolk, Va.

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Almost every size and for every duty. Steam, Electric and Gasoline,

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x 10" x 12" Worthington 1000 gal. Fire Pump, 65—10" x 6" x 12" Buffalo Brand new, special price, Many other sizes and makes,

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20 and 12 x 14 Chicago Pneumatic 1145 cu. ft. 22 and 14 x 18 Laidlow, Dunn and Gording

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40 H. P. Advance Steam Tractor, Compound Engine Tractor Wheels, 6' 6" dia. x 30" wide.

150-Wood tanks, 5000 gal. capacity, slightly used, practically new.

1-7 Ft. Austin Road Scraper. Standard Gauge R. R. Ties.

6-36" Gauge Lakewood, Storage Battery locomo-

75-Steel Frame Flat Cars double truck, beds 5' x 25'.

75-Single truck flat cars 36" gauge beds 6' 3" x 11'.

75-Sets 36" gauge wheels and axles.

37-Sets Ellis Standard Gauge Pumping post.

20-6'-36" Gauge Cast-Iron Turn-Tables.

A large assortment of I beams 6" x 8', 7" x 8', 10" x 14'. Steel and wood sheave blocks, turn buckle.

Wire nails, anvils, gasoline engine diaphragm pumps. Many other items too numerous to mention.

A number of standard gauge flat and gondola cars. All surplus war materials that must be moved fast.

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"CINCINNATI" Track Equipment, being carefully designed. saves time by the elimination of tie-ups due to accidents.

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The equipment is made of the best material obtainable and by workmen who are masters in their line. *

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300 flat cars, standard gauge, 36 to 40 ft. capacity 40,000, 50,000, 60,000 and 80,000 lbs.
35 gondola cars 60,000 and 80,000 lbs. capacity 25' 7" to 36' long, one and four board high, flat and hopper bottom.
15 box cars, standard gauge, 36 ft., 50,000 lbs. capacity.

All equipped with air and hand brakes.

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1—Browning 50-ton locomotive crane. New 1918. Used about two years. 1—18x24" 10-wheel type locomotive. Rebuilt.

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40 Standard and 36" Gauge Modern Direct-connected Locomotives, in all types and weights from 8 to 75 tons.

10 Standard and 36" Gauge Geared Locomotives all weights.

15 Steam Shorels and Locomotive Cranes of different types and sizes.

100 sets 35 and 40-1b Frogs and Switches; good as new.

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2-15 Ton Brown-Holst 8 Wheel Double Drum 50' Boom 1-15 Ton Bucyrus 8 Wheel Double Drum 50' Boom 2-20 Ton Brown-Holst 8 Wheel Double Drum 50' Boom 1-17 Ton Brown-Holst 8 Wheel Double Drum 50' Boom

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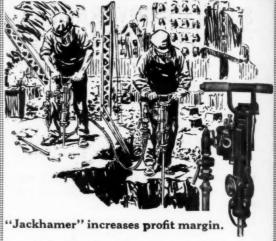
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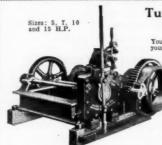
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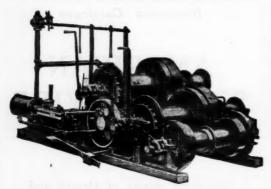
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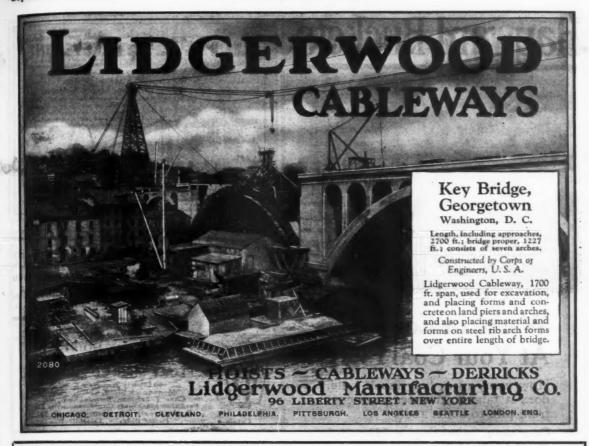
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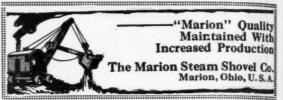
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Roller path gear elevated 1½ inches above surrounding surface of truck frame casting.

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Tread belts driven by teeth on the sides of the round driving rollers engaging with the guiding flanges on the links. Continuous tread surfaces, with two more treads of each belt resting on the ground.

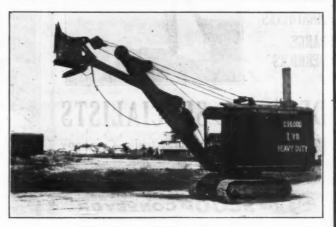
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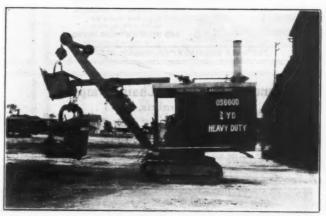
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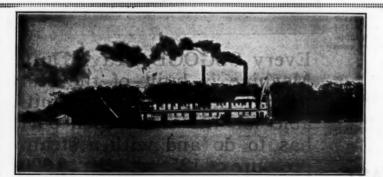
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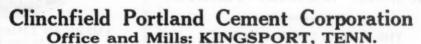
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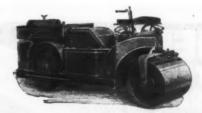
with an Austin Tandem Motor Roller on the job.

All steam tandems are "off duty" at least 15 minutes out of every working hour in the day. The engineer spends that much time fussing with his fire and water.

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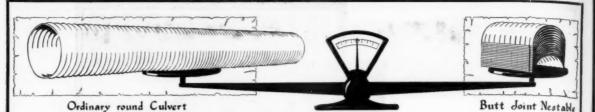
The main reason, however, for the popularity of Packard Trucks with the smaller business, as with fleet owners, is the fact that Packard Trucks actually do give more years of service at lower cost.

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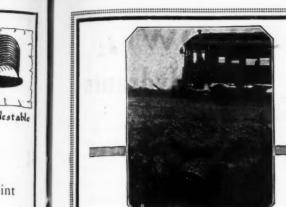
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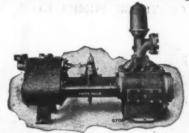
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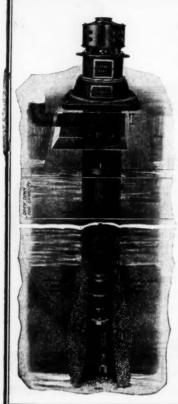
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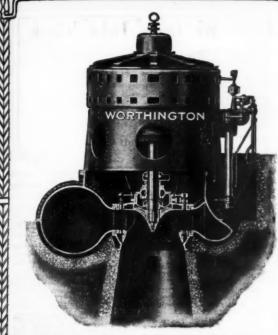
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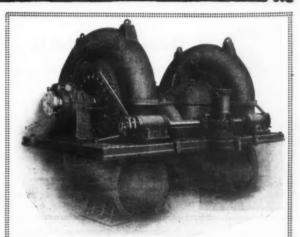
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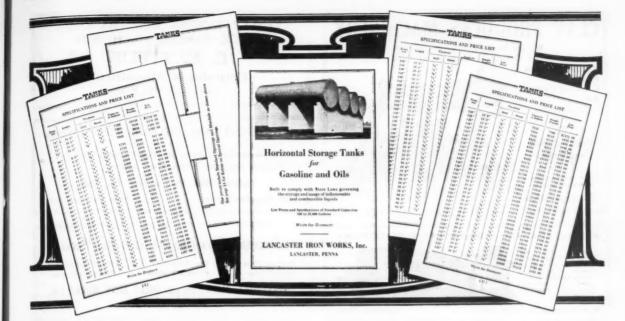
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Allon Engr. & Mfg. Co., Savannah, Ga.
Burkett Sheet Metal Works, Hattlesburg,
Miss.
National Blow Pipe & Mfg. Co., New
Orleans, La.
Savannah Blow Pipe Co., Savannah, Ga.
Shreeport Blow Pipe & Sheet Iron
Works, Ltd., Shreeport, La.

BODIES. (Automatic Dump.) Eagle Wagon Works, Auburn, N. Y. Jennings Automatic Dump Body, Inc., Roanoke, Va.

BOILERS.

BOILERS.
Abendroth & Boot Mfg. Co., Newburgh,
N. Y.
Babcock & Wilcox Co., New York, N. Y.
Babcock & Wilcox Co., New York, N. Y.
Babcock & Wilcox Co., New York, N. Y.
Brownell Co., Dayton. Ohio.
Charleston Dry Dock & Mch. Co., Charleston, S. C.
Chattanooga Boller & Tank Co., Charleston, S. C.
Chattanooga Boller & Tank Co., Charleston, Co.
Colle Mfg. Co., B. D., Newman, Ga.
Corinth Mchry, Co., Corinth, Miss.
Curtis Bay Copper & Iron Works, Ina.,
Baltimore, Md.
Davis, J. F., Chicago, III.
Edge Moor Iron Co., Edge Moor, Del.
Eric City Iron Works, Eric, Pa.
Hartis Prox. Co., Chicago, III.
Harris Brox. Co., Chicago, III.
Houton, Stanwood & Gamble Co., Chacinnati, O.
Lombard Iron Wiss & Sup. Co., Augusta,
Lookout Boller & Mfg. Co., Chattanooga.
Markmar, Eng. Co., Chicago, III.

BOILER BAFFLES. Jointless Fire Brick Co., Chicago, Ill.

BOILER COATING. (Insulating.)
Robertson Co., H. H., Pittsburgh, Pa.

BOILER FEED.WATER PURIFICATION Scaife & Sons Co., Wm. B., Pittsburgh. BOILER GRAPHITE.

Dixon Crucible Co., Jos., Jersey City, N.J.

BOILER HEADS. (Flanged.) Lukens Steel Co., Coatesville, Pa. BOILER SETTINGS.

Jointless Fire Brick Co., Chicago, Ill.

BOILER TUBES.

Allegheny Steel Co., Pittsburgh, Pa., Boller Tube Co. of America, Pittsburgh, Cincinnati Iron & Steel Co., Cincinnati, O., Midvale Steel & Ordnance Co., Phila. National Tube Co., Pittsburgh, Pa. Ryerson & Son, Jos. T., St. Louis and New York.

BOLTS, RIVETS, STUDS, WASHERS Atlanta Bolt & Steel Prod. Co., Atlanta.
Bethlehem Steel Co., Bethlehem, Pa.
Midvale Steel & Ordnance Ca., Phila.
Oliver Iron & Steel & Ordnance Ca., Phila.
Oliver Iron & Steel Co., Pittaburgh, Pa.
Progressive Mfg. Co., Torrington. Conn.
Republic Iron & Steel Co., Youngstown, O.
Ryerson & Son, Jos. T., St. Louis and
New York.

BOND BUYERS.

BOND BUYERS.

Breed, Elliott & Harrison, Cincinnati, Caldwell & Co., Nashville, Tenn. Elkins & Co., M. W., Little Bock, Ill. Haisey, Stuart & Co., Chicago, Ill. Hanchett Bond Co., The, Chicago, Ill. Mercantile Trust & Deposit Co., Balta, Miller & Co., G. L., Atanta, Ga. Miller & Co., G. L., Atanta, Ga. Porvident Savings Bank & Trust Co., Cincinnati, O. Provident Savings Bank & 1.1.

cinnati, O., Cincinnati.

Rosenstel-Ellis Co., Cincinnati.

Scasongood & Mayer, Cincinnati.

Sliverman Co., W. H., Cincinnati.

Slayton & Co., W. L., Toledo, O.

Title Guarantee & Trust Co., Cincinnati.

BONDS. (Surety, etc.) Miller & Co., G. L., Atlanta, Ga.

BRASS. (Rod, Sheet, Tube. etc.) Chase Metal Works, Waterbury, Conn. Mueller Metals Co., Port Huron, Mich.

BRASS GOODS.

Balley-Lebby Co., Charleston, S. C.
Copper & Brass Research Asso., New York
Lunkenheimer Co., The, Cincinnati, O.
Powell Co., The William, Cincinnati, O.
Waterbury Mfg. Co., Waterbury, Conn.

Hood Brick Co., R. Mifflin, Atlanta Ga.

Common Building.
Friend & Co., Inc., Petersburg, Va.
Georgia-Carolina Brick Co., Augusta, Ga.
Kingsport Brick Corp., Kingsport, Tenn.

Enameled.

Am. Enam, Brick & Tile Co., New York. Face.

Face.

Am. Enam. Brick & Tile Co., New York. Birmingham Clay Prod. Co., Birmingham. Clay Prod. Co., Birmingham. Cannelton Clay Prod. Co., Cannelton, Ind. Hood Brick Co., B. Mifflin, Atlanta, Ga. Kingsport Brick Corp., Kingsport, Ten. Lock Haven, Lock Haven,

Pa, Williams Brick Co., F. Graham, Atlanta. Fire.

Pressed (Dry). Georgia-Carolina Brick Co., Augusta, Ga.

Anderson Fdry. & Mch. Co., Anderson, Anderson Fory. & MCD. Co., Salusseson, Ind.
Fernhois Brick Mchy. Co., St. Louis, Mo. Freese & Co., E. M., Gallon, O.
Haddleid-Penfield Strel Co., Bucyrus, O.,
International Clay Machinery Co., Dayton,
Lancaster Iron Works, Inc., Lancaster, Pa.
Rtoel & Nons J C., Statesville, N. C.
Taplin-Rice-Clerkin Co., Akron, O.

Conorate. Bobinson & Co., Dwight P., New York.

Steel.

Steel.

American Bridge Co., New York, N. Y. Belmont Iron Works, Philadephia, Pa., Co., Wilmighton, O. Chesapeake Iron Works, Baltimore, Md. Converse Bridge & Steel Co., Chattanoga. Farris Bridge Co., Coumberland, Md. Grainger & Co., Ino., Louisville, Md. Grainger & Co., Ino., Louisville, Md. Ingails Iron Works Co., Birmingham, Ingails Iron Works Co., Birmingham, Ingails Iron Works Co., Fittaburgh, Pa. Bichmond Struc, Steel Co., Rich'd, Va. Virginis Bridge & Iron Co., Roanoke, Va.

BRIDGES AND STRUCTURAL IRON Chattanooga Paint Co., Chatta'ga, Tenn.

RIMSTONE. Union Sulphur Co., The, New York, N. Y.

BUCKETS.

Clam Shell.

Blaw-Knoz Co. Pittsburgh, Pa.
Browning Co., Cleveland, Ohio.
Haise Mig. Co., tieo., New York, N. Y.
Haward Co. The New York, N. Y.
Orton & Steinbrenner Co., Chicago, III.
Owen Bucket Co., The, Cleveland, O.

Dradging, Excavating, Sewer, Etc. Haiss Mig. Co., Inc., Geo., New York, Haywari Co., The, New York, N. Y. Marion Steam Shovel Co., Marion, O. Monighan Machine Co., Chicago, Ill. Owen Bucket Co., The, Cieveland,

Pawling & Harnischfeger Co., Milwaukee.

Orange Peel.

Hayward Co The New York, N. Y. Orton & Steinbrenner Co., Chicago, Ill.

Ore Handling, Caldwell & Son Ca., H. W., Chicago, Ill. Hayward Co., The, New York, N. Y. Owen Buckst Co., The, Cleveland, O.

BUILDERS AND CONTRACTORS. FUILIBLE AND CONTRACTORS.
France, Brace & Co., New York, N. T.
France, Brace & Co., New York,
Robinson & Co., Dwight P., New York,
Stone & Webster, Boston, Mass.
White Engr. Corp., The J. G., New York,
Widmer Kingheering Co., St. Louis, Mo.

BUILDINGS.

industrial. Insustrial.

Beimont iron Works, Philadelphia, Pa.

Farris Bridge Co., Cumberland, Md.
Ingails Iron Wks, Co., Birmingham, Ala.

McClintic-Marshall Co., Pittsburgh, Pa.

Maryland Metal Building Co., Baltimore.

Metal. Maryland Metal Building Co., Baltimore.

Portable, Steel.

Blaw-Knox Co., Pittsburgh, Ps., Maryland Metal Building Co., Baltimore.

Portable, Wooden. Minter Homes Co., Greenville, S. C.

Pressed Steel. Truscon Steel Co., Youngstown, O.

BUILDING MATERIAL. Minter Homes Co., Greenville, S. C.

BUSHINGS. (Brass & Bronze.)
Mueller Metals Co., Port Huron, Mich.

CABLES. (Copper Wire, Etc.)
Williamsport Wire Rope Co., Williamsport, Pa.

CABLES AND WIRE. (Electric.)
American Steel & Wire Co., Chicago, Ill.
Roebling's Son Co., J. A., Trenton, N. J.

CABLEWAYS. (Overhead, Suspension.) Allen Engineering Co., Philadelphia, Pa. Broderick & Bascom Rope Co., St. Louis. Flory Mfg. Co., S., Bangor, Pa.

BRICK AND CLAYWORKING MCHY. Lidgerwood Mfg Co. New York N Y. AND SUPPLIES. Mundy Hoisting Engine Co., J. S., Newark, Anderson, Edv. A. Meh. Co. Anderson. nerman Bros., Chicago, Ill.

CALCINERS

Christie Co., L. B., Pittsburgh, Pa.

CALL SYSTEMS. (Automatic.) Automatic Electric Co., Chicago, Ill.

CAMERAS. (For Business Documents.)
Photostat Corp., Bochester, N. Y.

CAN AND BOX-MAKING MACHINERY. Bliss Co., E. W., Brooklyn, N. Y.

CANNING MACHINERY AND SUP-Robins & Co., A. K., Baltimore, Md.

Dump, Industrial, Logging and Mine. Electric Wheel Co., Quincy, Ill.
Georgia Car & Loco, Co., Alianta, Ga.
Georgia Car & Loco, Co., Alianta, Ga.
Mid-Continent Sul. & Mchry, Co.,
Louis, Mo.
Sherwood, E. C., New York, N. Y.
Southern Iron & Equip, Co., Atlanta, Ga.
United Iron Works, Kansas City, Mo.

Tank. Liquids Despatch Line, Chicago, Ill.

CAR LOADERS AND UNLOADERS Bonney Supply Co., Inc., Rochester, N. Y. Byers Machine Company, Ravenna, O. Dow Co., The, Louisville, Ky. Haiss Mfg. Co., Geo., New York, N. Y. Portable Mchry, Co., Passaic, N. J.

CAR ROOFS. (Pressed Steel.) ron Pressed Steel Co., Sharon, Pa.

CAR WHEELS, AXLES AND TRUCKS. Carnegie Steel Co., Pittsburgh, Pa. United Iron Works, Kansas City, Mo.

CASTINGS.

Aluminum. Dixie Brass & Fdy. Co., Birmingham, Ala.

Brass and Bronze. Brass and Bronze,
Bethlehem Steel Co., Bethlehem, Pa.,
Covington Mach. Co., Inc., Covington, Va.,
Curtis Bay Copper & Iron Works, Inc.,
Baltimore, Md.
Ditte Brass & Fdy. Co., Birmingham, Ala.
More-Jones Brass & Metal Co., St. Louis,
Mueller Metals Co., Port Huron, Mich.

Gray Iron.

Caldwell & Co., E. R., Bradford, Pa.
Charleston Dry Dock & Mch. Co.,
Charleston, S. C.
Columbian Iron Wks., Chattanooga, Tenn.
Covington Mach. Co., Inc., Covington, Va.
Georgia Car & Loco. Co., Adlanta,
Glamorgan Plps & F.V. Co., Lynchburg, Va. Hammod-Byrd Iron Co., Birm'ham, Ala. Murray Iron Works, Burlington, Ia. Nat'l Cast Iron Pipe Co., Birmingham, Bognoke Bridge & Iron Wks., Roanoks. Roancke Briuge

Va.

Sun Shipbuilding Co., Chester, Pa.

U. S. Cast Iron Pipe & Fdy. Co., Burlington, N. J.

100 Co., Danville, Pa. ington, N. J. Westbrook Elev. Mfg. Co., Danville, Pa.

Mal-Gra Cast. Co., Cambridge City, Ind.

Semi-Steel.

Salem Fdry. & Mch. Wks., Salem, Va.

Steel. Bethlehem Steel Co., Bethlehem, Pa. Crucible Steel Castings Co., Lansdow

Metal.

Berger Mfg. Co., The, Canton, Ohio. Canton art Metal Co., Fne. Canton. Edwards Mfg. Co., The, Cincunnati, Intern'i Steel & Iron Co., Evansville, Schoedinger, F. O., Columbus. O.

GEMENT.
High Temperature.
Jointless Fire Brick Co., Chicago, III.

Portland.

Atlas Portland Cement Co., New York.
Clinchfield Portland Cem., Corp., Kingsport, Tenn.
Dixis Portland Cem. Co., Chattanooga.
Gulf States Portland Cement Co., Demopolis, Ala.
National Cement Co., Birmingham, Ala.
Portland Cement Assn., Chicago.
Southern States Portland Cement Co.,
Rockmart, Ga.

CEMENT MACHINERY.

Allis-Chaimers Mfg. Co., Milwaukee, Wis. Traylor Eng. & Mfg. Co., Allentown, Pa.

CEMENT THE

Amer. Cement Tile Mfg. Co., Pittsburgh.

CHAIN BLOCKS. Wright Mfg. Co., Lisbon, O.

Columbus McKinnon Chain Co., The, Co-lumbus, Ohio. Beading Chain & Block Corp., Reading, Byerson & Son, Jos. T., St. Louis and New York

Dredge, Quarry, Steam, Shovel, Columbus McKinnon Chain Co., The, Columbus, Ohlo.

Knoxville Iron Co., Knoxville, Tenn.

Silent Drive. Morse Chain Co., Ithaca, N. Y.

Sprooket.

Chain Belt, to. Milwaukee, Wis Columbus McKinnon Chain, Co., The, Co-lumbus, Ohio. ing-Beit Co., Philadelphia, Pa, 'eller Mfg, Co., Chicago, Ill.

CHAIRS. (Reinforcing Bars.) Concrete Steel Co., New York, N V.

CHEMICALS

Davison Chemical Co., Baltimore, Md. Du Pont de Nemours & Co., Inc., E. I. Wilmington, Del.

CHEMISTS. CHEMICAL ENGINEERS

CHEMISTS. CHEMICAL EMGINEERS.
Analytical.
Berkeley. W. N., Baltimore. Md.
Froehling & Robertson. Bichmond. Va.
Hochstadter Laboratories; New York.
Hunt & Co., Bobert W., Chicago, Ill.
Luter. Clark A., Baltimore, Md.
Meade & Co., Bichard K., Baltimore, Md.
Pittsburgh Testing Lab., Pittsburgh, Pauling Lab., Pittsburgh, Pauling Md.
Wiley & Co., Inc., Baltimore, Md.

Cement. (Portland.)

Berkeley, W. N., Baltimore, Md. Froehling & Robertson, Bichmond, Va. Hunt & Co., Robert W., Chicago, III. Pittsburgh Testing Lab., Pittsburgh, Pa.

Coal and Coke

Berkeley, W. N., Baltimore, Md.
Hochstadter Laboratories, New York,
Hunt & Co., Robert W., Chicago, Ill.
Pittsburgh Testing Lab., Pittsburgh, F
Wiley & Co., Inc., Baltimore, Md.

Froehling & Robertson, Richmond, Va. Hochstadter Laboratories, New York. Luter, Clark A., Baltimore, Md. Wiley & Co., Inc., Baltimore, Md.

Cettonseed.
Wiley & Co., Inc., Baltimore, Md.

Fertilizers.

Freehling & Robertson, Richmond, Va. Luter, Clark A., Baltimore, Md. Wiley & Co., Inc., Baltimore, Md.

industrial.

Berkeley, W. N., Baltimore, Md. Hochstadter Laboratories, New York. Meade & Co., Richard K., Baltimore, Md.

Minerals and Ores.

Luter, Clark A., Baltimore, Md. Pittsburgh Testing Lab., Pittsburgh, Pa. Wiley & Co., Inc., Baltimore, Md.

OII.

Hechstadter Laboratories, New York. Luter, Clark A., Baltimore, Md. Wiley & Co., Inc., Baltimore, Md.

Berkeley, W. N., Baltimore, Md. Hunt & Co., Bobert W., Chicago, III. Pittsburgh Testing Lab., Pittsburgh, Pa.

N., Baltimore, Md. mical Co., Wilmington, Del. Beterrann Richmond, Va.

Hochstadter Laboratories, New York, Wiley & Co., Inc., Baltimore, Md.

CHEMICAL MACHINERY. (Used.) Heineken, W. P., New York, N. Y.

CHEMICAL PLANT EQUIPMENT. Curtis Bay Copper & Iron Works, Inc.

Concrete.
Rust Engineering Co., Pittsburgh, Pa. Radial Brick

Custodis Chimney Const. Co., Alphona New York, N. Y. Bust Engineering Co., Pittsburgh, Pa. Steel.

Petroleum Iron Wks. Co., Sharon, Pa

CITY PLANNING

Draper, E. S., Charlotte, N. C. Ludlow Engra., Winston-Salem, N. C.

CLEANING POWDER.

India Alkali Works, Boston, Mass

CLOCKS. (Watchman's Portable) Chicago Watchman's Clock Wks., Chicago. Eco Clock Co., Boston, Mass. Newman Clock Co., New York, N. Y.

GLUTCHES. (Friction.) Caldwell Co., Inc., W. E., Louisville, E., Kinney Mfg. Co., Boston, Mass. Medart Co., The. St. Louis. M. Woods Sons Co., T. B., Chambersburg, Pa.

(Bituminous.)

Alabama Co., The, Birmingham, Ala Central Coal & Coke Co., Kansas Cts, Hammond-Byrd Iron Co., Birmingham Monro Warrior Coal & Coke Co., Birmingham.
Tenn, C. I. & R. B. Co., Birmingham.
Yolande Coal & Coke Co., Birmingham.

COAL AND ASH-HANDLING MCHY. COAL AND ASH-HANDLING MCHY, Chain Belt Co., Milwaukee, Wia Columbus Conveyor Co., Columbus, Dow Co., Inc., The, Louisville, Rr., Baiss Mfg. Co., Geo., New York, N. T., Jeffrey Mfg. Co., Columbus, O., Ldigerwood, Mfg. Co., New York, N. T., Jeffrey Mfg. Co., Columbus, O., Llaigerwood, Mfg. Co., New York, N. T., Link-Belt Co., Philadelphia, Pa. Portable Mchry. Co., 'Passaic, N. J. Bobins Conveying Belt Co., New York, M. Montour Falls, K. T. G. & Holst Cs., Montour Falls, K. T. G. & Holst Cs., Weller Mfg. Co., Chicago, Ill.

COAL TAR AND BY-PRODUCTS. Barrett Co., New York, N. T. Brier Hill Steel Co., Youngstown, 6.

American Bridge Co., New York, N. I.

COIL MAKING. (Armature and Field) Charlotte Elec. Repair Co., Charlotta M.C.

Alabama Co., The, Birmingham, Ala Brier Hill Steel Co., Youngstown, O. Hammond-Byrd Iron Co., Birmingham Monro Warrior Coal & Coke Co., Bir-mingham Tenn. C. I. & B. R. Co., Birmingham Yolande Coal & Coke Co., Birmingham

COKE OVENS. (By-Products.) Smythe Co. S. R., Pittsburgh, Pa. ,

COLUMNS. (Cast Iron.) U. S. Cast Iron Pipe & Fdy. Co., Bu-lington, N. J.

COMMUTATORS. Chattanooga Armature Wks., Chattanega

COMPRESSORS. (Gasoline Extraction) Bullivan Machinery Co., Chicago, Ill.

CONCRETE CONSTRUCTION. (See Atlas Portland Cement Co., New York. Bust Engineering Co., Pittsburgh, Pa.

CONCRETE CULVERT FORMS. Blaw-Knox Co., Pittsburgh, Pa.

CONCRETE HARDENER.
Master Builders Co., The, Cleveland, &
Truscon Laboratories, The, Detroit, Mas

or you. W York.

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NG MCHY,
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Cleveland, &

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plans & Laughin Steel Co., Pittsburgh.
Enoxille Iron Co., Knoxville, Tenn.
Lacked Steel Co., St. Louis, Mo.

systom & Son. Jos. T., St. Louis and
New York.

Southern Steel Co., Youngstown, O.

Virzinia Steel Supply Co., Richmond, Va.

Virzinia Steel Supply Co., Richmond, Va.

CONCRETE REINFORCING WIRE AND WIRE FABRIC. WIRE FABRIU.

American Steel & Wire Co., Chicago, Ill,
Concrete Steel Co., New York, N. Y.
National Steel Fabric Co., Pittsburgh.
Wickwire-Spencer Steel Corp., New York,

CONCRETE ROAD REINFORCING National Steel Fabric Co., Pittsburgh.

GONDENSERS.

Suffalo Steam Pump Co., Buffalo, N. Y.
Cresson-Morris Co., Philadelphia, Pa.
Ingsrooll-Rand Co., New York, N. Y.
Manister Iron Wiss. Co., Manistee, Mich.
Westinglouse El, & Mfg. Co., E. Pittsburgh.

Worthington Pump & Mehy, Corp., N. Y.

CONDUITS. (Electrical, Interior, Steel.)
Youngstown Sheet & Tube Co., Youngstown, O.

CONDUIT SYSTEMS. (Underground.) George Constr. Co., Philadelphia, Pa.

CONTRACTORS.

CONTRACTORS.

Buildings, industrial.

Bayler & Co., C. A. D., Atlanta, Ga.
Concrete Steel Bridge Co., Clarksburg, W.

Va.

Doullut & Williams Co., New Orleans.
Foundation Co., The, New York, N. Y.
Fraser, Brace & Co., New York, N. Y.
Fraser, Brace & Co., New York, Co., Clarksburg, W.

Long Co., Charlanors, W.

Long Co., Charlanors, W.

Long Co., Charlanors, W.

Long Co., Charlanors, Co., Charlanors, V.

Parking Constr. Corp., New York, N. Y.

Robinson & Sons, M. F., Roanoke, Va.

Parking Constr. Corp., New York, N. Y.

Bouldeastern Constr., Co., Charlotte, N. C.

Wilder & Corp., The Boston, Mass.

Tucker & Laxton, Charlotte, N. C.

Wilder Engineering Co., St. Louis, Mo.

Drainage.
Atlantic Guif & Pacific Co., New York.
Canal Construction Co., Memphis, Tenn.
McGinnis & Co., N. C., Memphis, Tenn.
McWilliams Co., Inc., Memphis, Tenn.

Dredging.
Atlantic, Gulf & Pacific Co., New York.
Bayley & Co., C. A. D., Atlanta, Ga.

Electrical. Clark Jr. Electric Co., Jas., Louisville, Ky Huntington & Guerry, Greenville, S. C.

Foundations and Dams,
Bayley & Co., C. A. D., Atlanta, Ga
Foundation Co., The, New York, N.
Fraser, Brace & Co., New York.

Fraser, Brace & Co., New YOTK.

Bayles & Co., C. A. D., Atlanta, Ga.
Cornell-Young Co., Macon, Ga.
Doullut & Williams Co., New Orleans.
Foundation Co., The. New York, N. Y.
Fraser Brace & Co., New York, N. Y.
Fraser Brace & Co., New York
General Engr. & Countr. Co., Rockford, Ill.
Byde & Baxter, Washington, D. C.
Long Co., M. A., Ballimone, Banke, Va.
Normoyle & Sons Nuries. P., New York.
Southeastern Constr. Co., Charlotte, N. C.
Stone & Webster, Inc., Boston, Mass.
Tucker & Latton, Charlotte, N. C.
White Engr. Corp., The J. G., New York.

Levess, Rosch & Stansell, Memphis, Tenn. mosen & Stansell, assemblis, venn.

Bayley Mine Shafts and Tunnels,
Bayley Mine Shafts and Tunnels,
Foundation Co., The, New York, N. Y.
Fraser, Brace & Co., New York,
Sundation Co., The, New York, N. Y.
Fraser, Brace & Co., New York, N. Y.

Frace, Brace & Co., New York.

Bayler & Co., C. A. D., Atlanta, Ga.

Cornell-Young Co., Macon, Ga.

Foundation Co., The, New York, N. Y.

Fracer, Brace, & Co., New York, N. Y.

Fracer, Brace, & Co., New York, N. Y.

Fracer, Brace, & Co., Canada, Tenn.

Boaco, & Stansell, Memphila, Tenn.

Bayler & Co., C. A. D., Atlanta, Ga.

Concrete Steel Bridge Co., Clarksburg, W.

Vet.

Concrete Steel Bridge Co., Clarksburg, w. Ya.
Doullut & Williams Co., New Orleans,
Doullut & Williams Co., New York, N. Y.
Frazer, Brace & Co., New York, N. Y.
Brace & Baxter, Washington, D. C.
Long Co., M. A., Ballimore, B. C.
McCarlett-Fleming Co., Chattanogog, Tenn.
Normorje & Sons, M. F., Boanoke, Va.
Tucker & Laxton, Charlotte, N. C.
Tucker & Laxton, Charlotte, N. C.

Read and Street Paving.
McCrary Co., J. B., Atlanta, Ga.
Roach & Stansell, Memphis, Tenn.

Kansas City Slate & Tile Roofing Co., Kansas City, Mo.

Sewer and Water-Works.

Bayley & Co., C. A. D., Atlanta, Ga.
Foundation Co., The, New York, N. Y.
General Engr. & Constr. Co., Rockford, III.
Frazer, Brase, & Co., New York.
McCrary Co., J. B., Atlanta, Ga.
Todor & Lexion, Charlotte, N. C.

CONTRACTORS' MCHY. AND SUPPLIES.

CONTRACTORS' MGHY. AND SUPPLIES.
American Saw Mill Mchry. Co., Hackstratown, N. J.
Armstrong & Co., Archer. New York.
Beckerley & Trusler. Baltimore. Md.
Forschner, Alfred J., Philadelphia, Pa.
Foster Co., H. M., Baltimore. Md.
Green, L. A., Pittsburgh, Pa.
Hampion Boads Equip. Co., Norfolk, Va.
Hampion Boads Equip. Co., Norfolk, Va.
Houston Brancher, Salesan, J.
Hollander Eqt. Co., N.-W. York. N. Y.
Houston Ruy Car Co., Houston Tex.
Jacger Machiner Co., The. Columbus O.
Jennison, Walter R., Jacksonville, Fla.
Mallory Machinery Corp., Baltimore, Md.
Marine Metal & Supply Co., New York.
Mayer, F., Chicago, II.
Miles Machinery Co., Saginaw, Mich.
Mills Contractors Eqt. Co., Chattanoga.
Owen Bucket Co., The. Cleveland, O.,
Pipe & Contractors Eqt. Co., Chattanoga.
Owen Bucket Co., The., Cheveland, Co.,
Pipe & Contractors Eqt. Co., Chattanoga.
Ton, W. Va., Cherleston, W. Va., Cherleston, W. Va., The., Baltimore, Md.
Turner Co., C., Chattanooga, Tenn.

ton, W. Va. Tarr, Louis A., Inc., Baltimore, Md. Turner Co., C., Chattanooga, Tenn. Wilson & Co. E. H. Philadelphia. Pa. Wilson Tank & Culvert Co., San Antonio,

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CONTRACT WORK WANTED.

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Boiler and Tank Work.

Conting.
Foundry and Machine Shops.
Gear Cutting.
Machinery. (Special.)
Ornamental Iron Work.
Pattern Making.
Sheet Metal Work.
Pattern Works Co., York, Pa.
Columbus Porge & Iron Co., Columbus Forge & Iron Co., Columbus. O.
Boanoke Bridge & Iron Wiks., Boanoke, Va.

CHINERY. AND ELEVATING MA-CONVEYING AND ELEVATING MACHINERY, Calidwell & Son Co., H. W., Chicago, III. Chain Beit Co., Milwaukee, Wis. W. Va. Chain Beit Co., Milwaukee, Wis. W. Va. Haise Mig. Co., Geo., New York, N. X. Jeffrey Mig. Co., Columbus, O., Link-Beit Co., Philadelphia, Pa. McLanshan-Stone Mach. Co., Hollidayaburg, Pa. Portable Mchry, Co., Passaic, N. J. Robins Conveying Belt Co., New York. Bhepard Electric Crane & Holst Co., Taplin-Rice-Clerkin, Co., Akron, O. Weller Mig. Co., Chicago, III.

Coal and Carso Columbus Conveyor Co., Columbus, O.

Portable.

Jeffrey Mfg. Co., Columbus, O. Hampton Boads Equip. Co., Norfolk, Va.

COPPER & BRASS. Copper & Brass Research Asso., New York

CORD. (Braided.) Samson Cordage Works, Boston, Mass

Plymouth Cordage Co., North Plymouth, Mass. Samson Cordage Works, Boston, Mass. Whitlack Cordage Co., New York, N. Y.

COTTON-GIN MACHINERY. Continental Gin Co., Birmingham, Ala.

COTTON-MILL COLUMNS. Cordele Sash, Door & Lumber Co., Cor-dele, Ga.

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Froehling, & Robertson, Bichmond, Va.
Hunt & Co., Bobt. W., Chicago, III,
Pittaburgh Testing Lab., Pittaburgh. Fasting Lab., Pittaburgh. Fasting Lab., Pittaburgh. Fasting Lab., Pittaburgh. Fasting Lab., Pittaburgh.

Iron and Steel Plant. Smythe Co., S. B., The, Pittsburgh, Ps. DESCRIPTION anta, Ga

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Pa. nt Com. York. 78.

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D. C. N. C. Douglas W York.
S. C.
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Ashworth, F. S., Miami, Fla., Draper, E. S., Charlotte, N. C. Arres Eng. Co., Pine Bluff, Ark.

September 21, 1922.

Ayes & Bliff. Co. Pine Bluff, Ark.
Lighting.
Bylish blurgering & Management
Co. III.
Every Bacon & Davis, Inc., New York.
Gammood Engr. Co., Philadelphia.
Bantington & Guerry, Greenville, S. C.
McCrarf Co., J. B., Atlanta, Ga.
Peney, James, Baltimore, Md.
willsy & Wilson. Lynchourg., Va. Meade & Co., Richard K., Baltimore, Md. Mount, W. D., Lynchburg, Va.

Management.
Hill, Norman A., Baltimore, Md.

Hill, Norman A., Battimore, Md.

Meenanicat.

Biggs Engr. Co., W. E., Knoxville, Tenn.
Camp & Associates, E. V., Atlanta, Ga.
Day & Zimmermann, Inc., Philadelphia.
Enert, Hermann. Balto., Md.
George Constr. Co., Philadelphia.
Les. William S., Christice, Les.
Lide, Martin, D. Barton, Ala.
Lashin Cher Daniel McCleveland, O.
Marche, F. E., Atlanta, Ga.
Marche, F. E., Atlanta, Ga.
Marche, F. E., Atlanta, Ga.
Michael E., E., Atlanta, Ga.
Michael E., E., Atlanta, Ga.
Michael E., Chicago, I.
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Wiley & Wilson, Lynchburg, Va.

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Wiley & Wilson, Lynchburg, Va.

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Mining,
Clark & Krebs, Charleston, W. Va.
Sarnsson & Associates, Howard M.,
Pittsburgh, Pa.
M. O. & W. Engineering Corp., Norton, Va.
Tall Godfrey, M. S., Washington, D. C.

Tait Godfrey, M. S., Washington, D. C.

Municipal.

Minicipal.

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Packing-House.

Seri & Co., M. P., Memphis, Tenn.

Albright & Meinus Philadelphia, Pa.

Arber & Co., E. T. Karsas City,

Arber & Co., E. T. Karsas City,

Basson, S. B., Birmingham, Ala.

Basson, S. B., Birmingham, Ala.

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Dow & Smith, New York, N. Y.

Fresland, Roberts & Co., Nashville,

Elye, B. H., Nashville, Tenn.

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Banders & Sweeney, Anderson, S. C.

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Wills, W. N., Spartanburg, S. C.

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Johula & Hill, Inc., New York.
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Fauther & Howe, Memphis, Tenn.

Gardner & Howe, Memphis, Tenn.

Gardner & Howe, Memphis, Tenn.

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Meade & Co., Bichard K., Baltimore, Md.

Olson, O. Jacksonville, Fla.

Farsons, Klapp, Brinckerhoff & Douglas,

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Rest Engineering Co., Pittsburgeh, P.,

New York, N. Y.

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Black & Vesuch, Kansas City, Mo.
Carolina Engr. Co., Wilmington, N. C.
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Kiyce, B. H., Nashville, Tenn.
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McCalla & Co., J. B., Knoxville, Fla.
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Mees & Mees, Charlotte, N. C.
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Buff, Ark.
Banders & Sweeney, Anderson, S. C.
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Tucker & Laxton, Charlotte, N. C.
Willis, W. N., Bortanburg, S. C.

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Markel, F. E., Atlanta, Ga.
Wiley & Wilson, Lynchburg, Va.

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Cerliss.
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Regime Co., J. 8., Charleston Dry Dock & Mch. Co., Char

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Smith Co., Oscar T., Baltimore, Md. Young & Selden Ca., Baltimore, Md.

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Bay City Dreage Works, Bay City, Mich.
Bucyrus Co., South Milwaukee, Wis.
Erie Steam Shovel Co., (Ball Engine
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Hayward Co., The, New York, N. Y.
Keystone Driller Co., Beaver Falls, Fa.
Marion Steam Shovel Co., Marion, O.
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Osgood Co., The, Marion, O.
Owen Bucket Co., The, Cleveland, O.

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American Spiral Pipe Wks., Chicago, Ill.

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Merchants & Manufacturers Assn., Louisville, Ry.

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Cambria Clay Products Co., Blackfork, O.,
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Camelton Clay Prod. Co., Camelton, Ind.
Camelton Sewer Pipe Co., Camelton, Ind.
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Howard Befractories Co., Dorsey, Md.
Portsmouth, Befractories Co., The, Portsmouth, O.
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Loisting Engine Co., New York, N. Y.
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N. J. Yearn Mfg. Co., Chattanooga, Tenn. Shepard Electric Crane & Hoist Co., Montour Falls, N. Y. Stroudsburg Engine Wks., Stroudsburg Pa., United Iron Works, Kansas City, Mc.

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Pa.
Wright Mfg. Co. Lisbon, O.

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Box & Co., Alifred, Inc., Philla., Pa.
Byers Machine Company, Ravenna, O.
Elect. Hoist & Derrick Co., Hog Island, Pa.
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Lidgerwood Mfg. Co., New York, N. Y.
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Beading Chain & Block Corp., Reading,
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United Iron Works, Kansas City, Mc.

United from Works, Kansas City, Mo.
Sasoline.

Byers Machine Company, Ravenna, O.
Domestic Engine & Pump Co., Shippensburg, Pa.
Lidgerwood Mfg. Co., New York, N. Y.
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CHASE METAL WORKS CHASE CHASE ROLLING MILLS

Dramatized Facts out of The Day's Work

No. 16

All of the incidents depicted in this advertisement are facts—facts gleaned from the daily work of Grinnell engineers, salesmen and artisans. If you are really curious to know how we solved this special problem write to Mr. Cannon of the Cannon Mfg. Co., Kanapolis, N. C., or drop us a line. We shall be glad to answer your request.

Suddenly the new engineer grabbed his employer's hand. "There's our best bet," he cried. His eye had caught these words:



"If it's Industrial Piping-"

"THE whole success of our new dyeing process hinges on those pipe joints," rasped the President. "Your job is to find a way to make the dye plant pipe line stand the gaff. I've fired two men on account of it. Tim Sheehan said brass pipe, but a trial showed that it did not suit our peculiar requirements. Then Robertson recommended steel pipe, lead lined—"

"That stood up," broke in the new engineer.

"Bah! The pipe did but the fittings were pitted in no time and I wasted a few more thousands on repairs and repeated shut-downs. I'm sick of it. I buy the rights to a great process and you plant engineers can't harness it. I'm through spending my money on a lot of half-baked ideas—"

"Lead line the fittings," interrupted the new engineer.

"That's what that piping contractor proposed and it cost me good money to find out how quick it took acid to eat the threads out. They couldn't be leaded." The President gazed hopelessly at the ceiling as he nervously thumbed the pages of a magazine on the table.

Suddenly the new engineer grabbed his employer's hand. His eyes had caught these words at the bottom of one of the carelessly turned pages:

If it's Industrial Piping, take it up with us.

"There's our best bet," he cried eagerly. "If it's Indus-

trial Piping—Call in Grinnell Company. Ours is Industrial Piping—"

"Why, they're sprinkler people," objected the President.

"They did all the heating, power, process piping and humidifying work at the mill I just left," countered the engineer, "and a new sizing system besides. I never saw such piping work. I'll bet they can do this, too."

"Do anything you please," said the President, "but remember, we want the right answer, want it quick, and more guess work."

"Let us do the worrying from now on," said the Grinnell representative a month later, when with laboratory test completed, he handed across the table his contract with its guarantee clause and full specifications.

"This guarantee lifts a load from my mind," smiled the President, as he signed on the dotted line.

IF you are really curious to know how we solved this special problem write to Mr. Cannon of the Cannon Mfg. Co., Kanapolis, N. C., or drop us a line. When you write, also ask to have the Grinnell Industrial Piping Bulletin sent to you regularly. Address Grinnell Company, Inc. 292 West Exchange Street, Providence, R. I.

GRINNELL COMPANY

Automatic Sprinkler Systems Steam & Hot Water Heating Equipment

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Civilization Can Breathe More Freely.

Two epoch-making events marked the closing hours of last week when on Saturday the Grand Jury investigating the atrocious crimes at Herrin, Ill., returned indictments against two hundred and fourteen men, some for murder and some for assault with intent to commit murder, and definitely charged the authorities with failure "to protect life and property" through cowardice or membership in the miners organization. After giving in detail the horrors of that crime the Grand Jury adds:

"The atrocities and cruelties of the murders are beyond the power of words to describe. A mob is always cowardly, but the savagery of this mob in its relentless brutality is almost unbelievable. The indignities heaped upon the dead did not end until the bodies were interred in unknown graves."

The Grand Jury reports that they indicted some forty persons for murder, fifty-eight for conspiracy to commit murder, fifty-eight for rioting and five for assault to murder. It publishes the telegram received from President Lewis of the United Mine Workers of America to the district mine workers of Herrin, and says: "Following the publication of the telegram from President Lewis preparations for an attack upon the mine were made. The hardware stores in all the cities of Williamson county were searched for firearms. The weapons were either taken by force or upon a verbal assurance that the local would pay for them."

That is one of the great epoch-making events of the day, and the next, and perhaps of even greater importance, is the permanent injunction granted to the Government against the railroad employes who have been combined in a strike against the welfare of the nation. In his statement as to the reasons for granting this injunction Judge Wilkerson, referring to acts of violence against railroads, said:

"There began throughout the country a series of depredations which rapidly developed in some portions into a veritable reign of terror. Railroad bridges were dynamited, spikes were moved from rails, obstructions were placed upon railway tracks, bombs were exploded on tracks and in railroad yards and hurled at moving trains. Notwithstanding the admonitions of the leaders of the combination to use peaceful means only, the real situation at most of the places where the strike was in progress was that employes were insulted, assaulted and otherwise intimidated. The word of the 'peaceful' picket spoken in the vicinity of the shop was emphasized in the darkness of the night by the club and pistol of the 'unknown party.' Regardless of the condition that no injury must be inflicted upon property, there was sabotage upon a large scale, engines, cars and equipment were tampered with and innumerable acts of malicious mischief committed which endangered the lives of both passengers and those operating trains. These unlawful acts are shown to have been on such a large scale and in point of time and place so connected with the admitted conduct of the strike, that it is impossible on the record here to view them in any other light than as done in furtherance of a common purpose and as part of a common plan."

Civilization can breathe more freely in the light of these two epoch-making events. Once more the supremacy of law against the violence of misguided mon whose criminality has disgraced civilization is upheld. Every law-abiding citizen can thank God and take courage, and trust that every other violation of law will meet its due punishment.

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The Bon Air Hotel, Augusta, Georgia The Foundation Company, General Contractors

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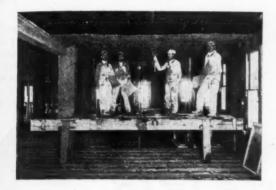
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1922

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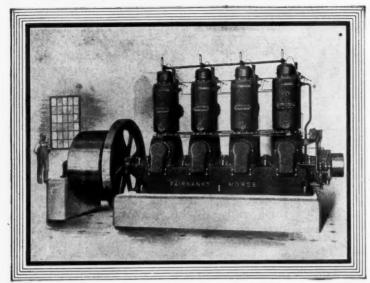
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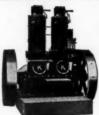
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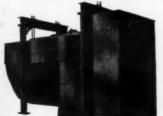
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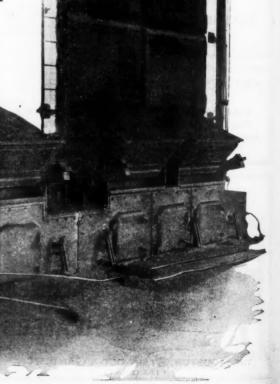
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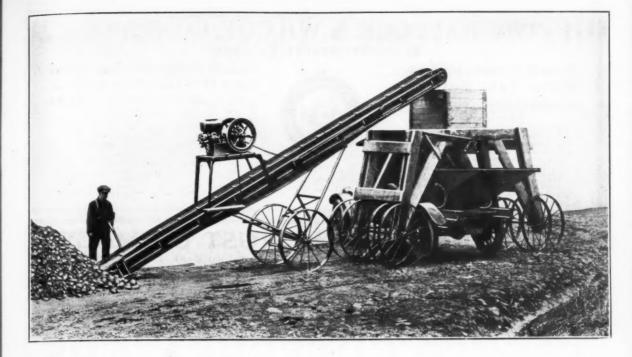


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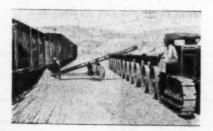
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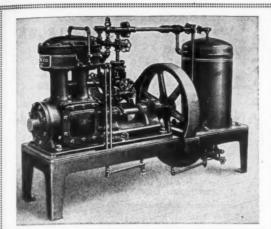
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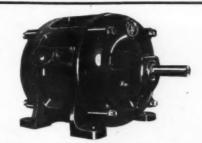
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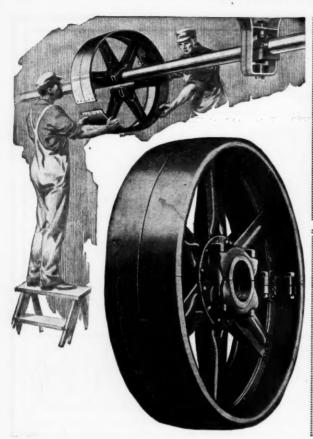
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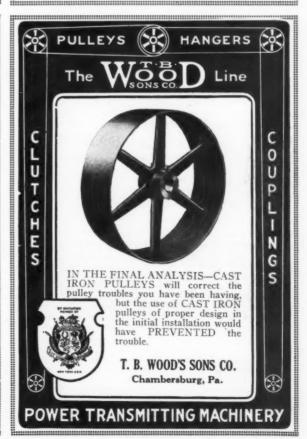
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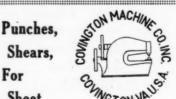


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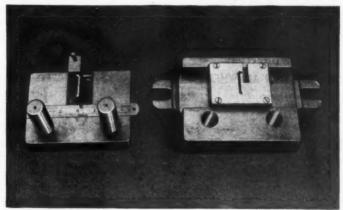


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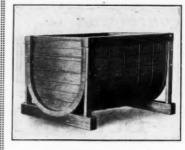
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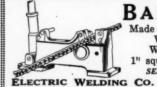
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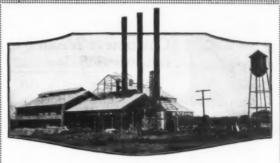
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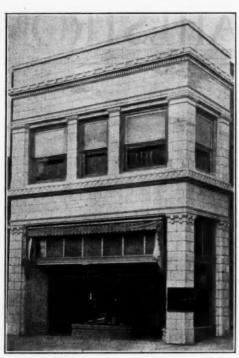
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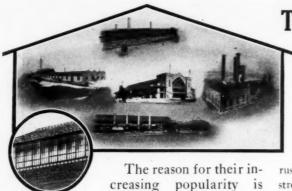
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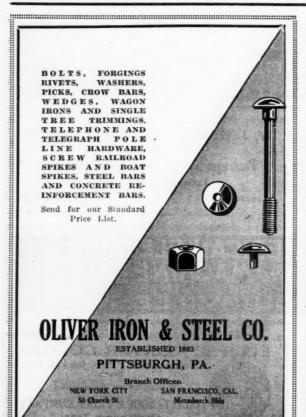
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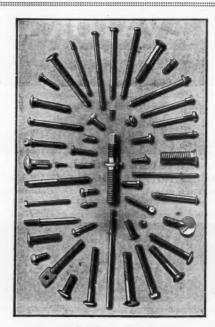
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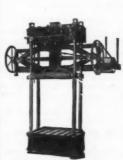
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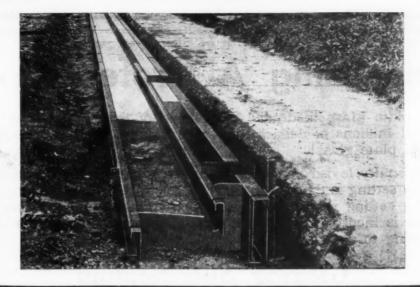
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The Heltzel Steel Form & Iron Co. WARREN, OHIO



Penalizing A Profession ~

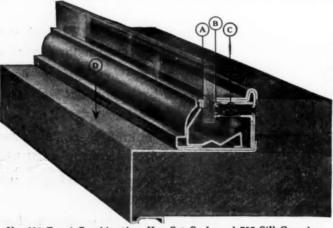
The plate glass insurance companies of this country pay out several millions of dollars each year because of needless breakage of plate glass!

This penalty, levied on a whole industry, is absolutely unnecessary. Faulty setting is the reason back of most plate glass breakage. Faulty setting is next to impossible if you see that the following clause is incorporated into all plate glass specifications you have anything to do with:

Glazing Specification

All Metal Sash, Corner Bars, Division Bars and Self-Adjusting Setting Blocks Used in Store Fronts Must Be Listed by the Underwriters' Laboratories

A is the point where the outer member presses against the glass, when the delicate watch-like turning of the key at C brings the glass automatically into contact with the rabbet of gutter B sliding on the anti-friction Murnane Self - Adjusting Setting Block.



The Sill Covering D extends from the inner side of the rabbet to the lower edge of the face, eliminating joints — perpendicular screws or mails—positively protecting the wood against deterioration, for leakage is impossible.

No. 110 Zouri Combination Key-Set Sash and 705 Sill Covering

By insisting upon this single condition, you automatically cut down plate glass breakage to the minimum. Help us check this tremendous penalty to the building profession!

All Zouri Metal Sash, Corner Bars, Division Bars and Self-Adjusting Setting Blocks are listed by the Underwriters' Laboratories.

Zouri Drawn Metals Company

Factory and General Office

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